No.01

Oki Data CONFIDENTIAL

C3400n/C3300n/C3450n
Maintenance Manual

ODA/OEL/AOS

[Rev. 5]

Related drawings

Drawing No.	Name
43163501TL	C3400n/C3300n Disassembly for Maintenance
43163501TR	C3400n/C3300n/C3450n RSPL

BOM | Use for | Certification Body

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Preface

This manual explains the maintenance methods of C3400n/C3300n/C3450n.

This manual is prepared for the maintenance person. In regard to the handling methods of C3400n/C3300n/C3450n, please refer to the User's Manual.

Note!

- Contents of this manual is subject to change without notice.
- While all reasonable efforts have been made to make this document as accurate and helpful as possible, we make no warranty of any kind, expressed or implied, as to the accuracy of the information contained herein. Oki Data assumes no responsibility to the damages caused or claimed to have been caused by the user as a result of repair, adjustment and/or change using this manual.
- Parts of this product are delicate and can be damaged unless properly handled. We strongly recommend the user to maintain the product at the hand of the registered maintenance person of our company.
- Before starting the maintenance work, please neutralize the static electricity.

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1 CONFIGURATION

1.1 System Configuration

C3400n/C3450n

The system configuration of this product is shown in Figure 1-1-1.

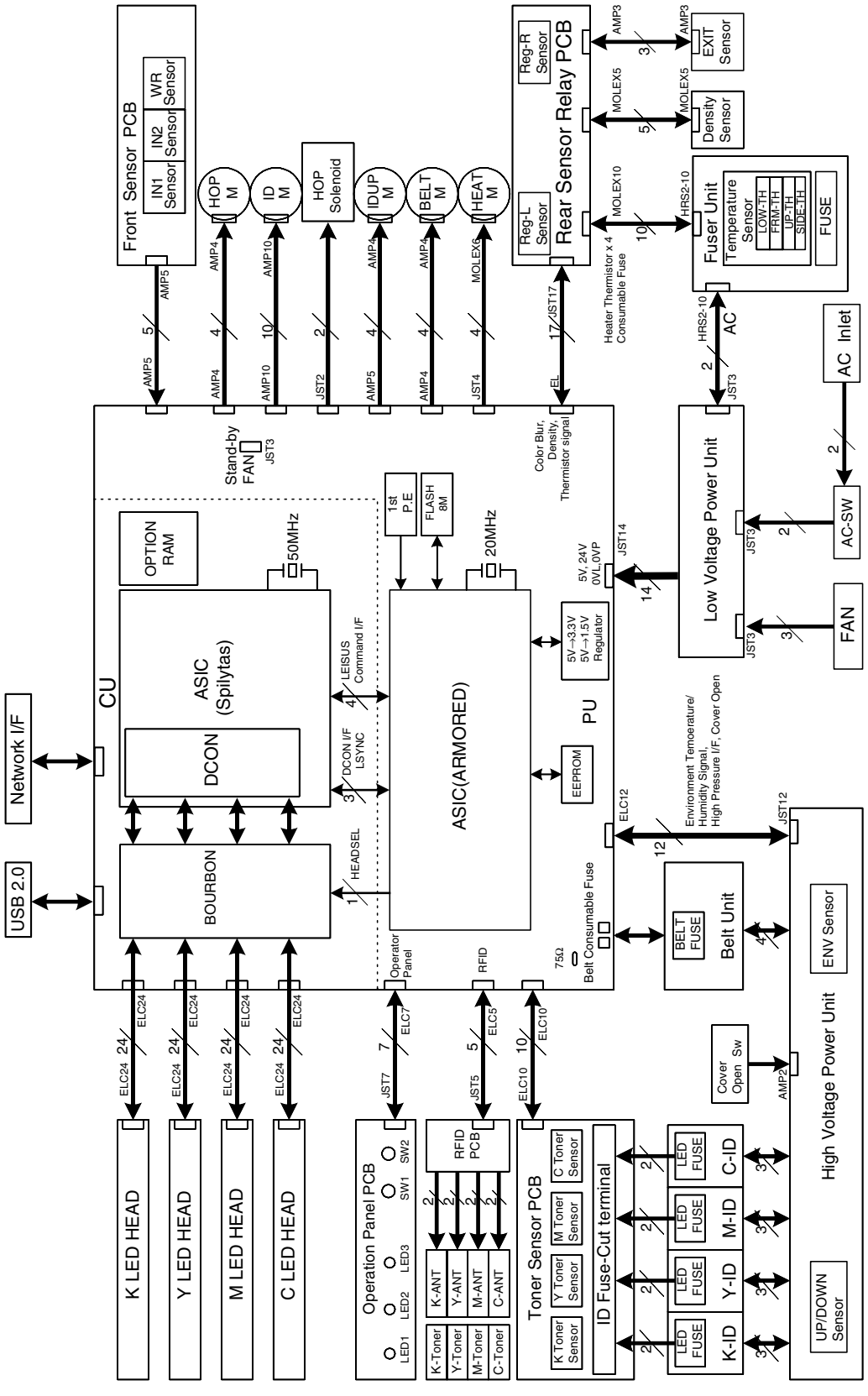


Figure 1-1-1

C3300n

System configuration of this product is shown in Figure 1-1-2.

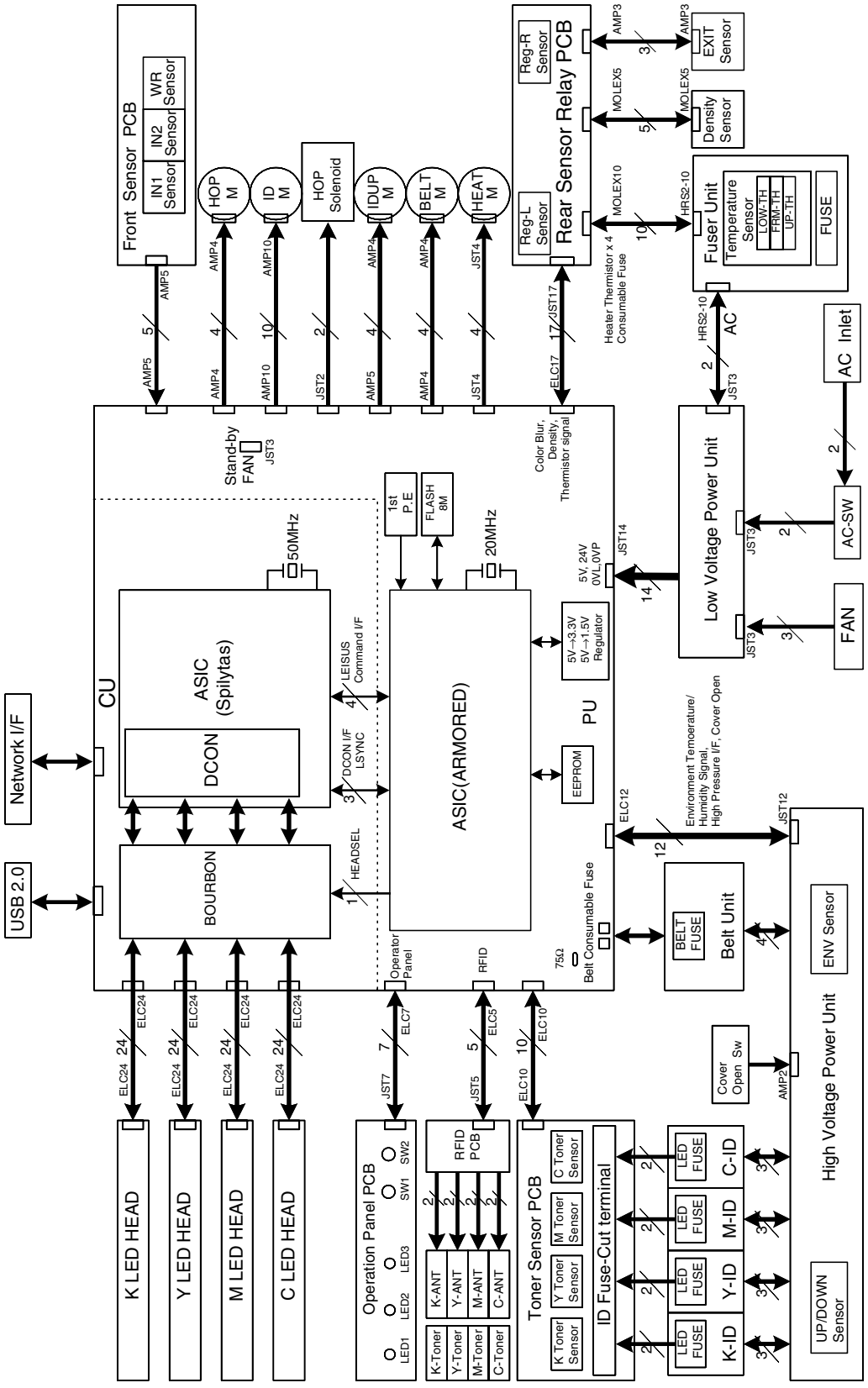


Figure 1-1-2

1.2 Structure of Printer

The insides of C3400n/C3300n/C3450n printers are composed of the following parts.

- Electronic photography process part
- Paper path
- Control part (CU part/PU part)
- Operation panel
- Power supply parts (high voltage part/low voltage part)

Figure 1-2 shows the composition of the printer.

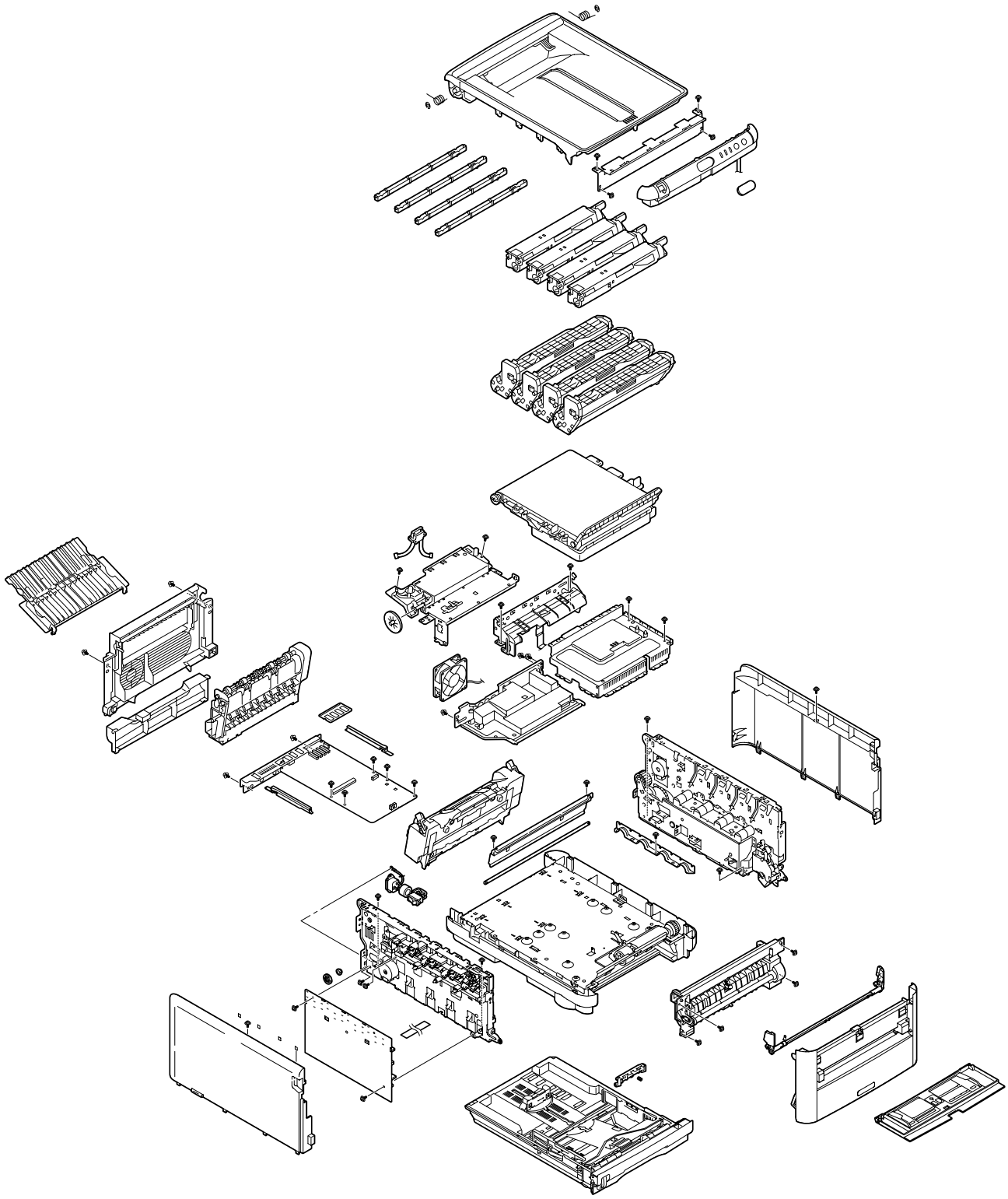
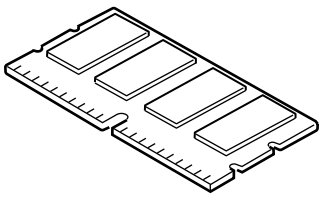


Figure 1-2

1.3 Offer of Options

This product can be installed with the following option.

(1) Additional memory board (C3400n/C3450n) 64/256MB
Installation of the additional memory board is recommended for banner-sheet printing.



1.4 Specifications

Category	Item	C3300n	C3400n/C3450n
Exterior Dimension	Width	372mm	
	Depth	478mm	
	Height	290mm	
	Weight	about 21kg	
Width of print	Width of print	A4	
Engine speed(A4)	Monochrome	16ppm	20ppm
	Color 12ppm 16ppm	12ppm	16ppm
Fast print time (A4)	Monochrome	12sec	10sec
	Color	15sec	12sec
	Warm-up time	60sec	
	Low noise mode	Unavailable	
Resolution	LED head	600dpi	
	Maximum input resolution	600 × 1200dpi	
	Output resolution	True 600 × 1200dpi True 600 × 600dpi	
	Step	4 steps 600 × 600dpi	
	Economic mode	toner saving by lowering light	
CPU	Core	PowerPC405	
	I-cash	16KB	
	D-cash	16KB	
	Clock	200MHz	
	Bus width	32bit	
RAM	Resident	32MB	
	Option	Unavailable	64/256MB DIMM
ROM	Program	total capacity 2MB	
Power Consumption	Power input	100-127VAC (Range 99-140VAC) / 220-240VAC (Range 198-264VAC)	
	Power saving mode	Below 14W	
	Idle	100W(average)	
	Normal operation	400W	
	Peak	980W	
Operating Environment (temperature)	In operation	10°C-32°C,17°C-27°C (temperature at full color printing with quality guaranteed)	
	At stand-by	0°C-43°C, power off	
	In storage (1 year max.)	-10°C-43°C with drum and toner	
	At transport (1 month max.)	-29°C-50°C with drum and without toner	
	At transport (1 month max.)	-29°C-50°C with drum and toner	
Operating Environment (humidity)	In operation	20%-80%, 50%-70% (humidity at fullcolor printing with quality guaranteed) Max. wet bulb temperature : 25°C	
	At stand-by	10%-90%, Max. wet bulb temperature : 26.8°C with power off	
	In storage	10%-90%, Max. wet bulb temperature : 35°C	
	At transport	10%-90%, Max. wet bulb temperature : 40°C	

Category	Item		C3300n	C3400n	C3450n
Life	Printer life		300,000 pages or 5 years		
	Duty cycle (M=L/12,A=L/12/5)		350,000 pages per month max. 5,000 pages per month average		
	MTBF (2.3% duty)		6,000 hours		
	MTBF		35,000 pages		
	MTTR		20 minutes		
	Toner life (5% duty)	starter toner (Appended)	ODA/JPN about 1,000 pages (black) OEL/AOS about 500 pages (black) ODA/JPN about 1,000 pages (color) OEL/AOS about 500 pages (color)		
		Standard	about 2,500 pages (black) OEL/AOS about 2,500 pages (color) ODA/JPN about 2,000 pages (color)		about 2,500 pages (black and color)
		New drum 1st one	about 1,700 pages (black) OEL/AOS about 1,700 pages (color) ODA/JPN about 1,200 pages (color)		about 1,700 pages (black and color)
		S type	ODA/OEL/AOS about 1,500 pages (black) JPN about 1,000 pages (black) OEL/AOS about 1,500 pages (color) ODA/JPN about 1,000 pages (color)		about 1,500 pages (black and color)
		New drum 1st one	ODA/OEL/AOS about 700 pages (black) JPN about 500 pages (black) OEL/AOS about 700 pages (color) ODA/JPN about 500 pages (color)		about 700 pages (black and color)
	Image drum life		15,000 pages approx.(3 pages/ job) 9,000 pages approx.(1 page/ job) 20,000 pages approx.(at continuous print) Automatic drum counter reset		
	Transcript belt life		50,000pages (size A4, 3 pages/job) Automatic counter reset		
	Fuser life		30,000pages (size A4) Automatic counter reset	50,000pages (size A4) Automatic counter reset	
Operation noise	In operation (ISO 7779 front) Printing on one side		6.38B (A)	6.5B (A)	
	At stand-by (ISO 7779 front)		3.7B (A)		
	Power saving mode		back grand level		
Paper handling	Paper feeding capacity (1st tray)		legal/universal cassette 250 sheets (70kg)		
	Paper feeding capacity (manual feeder)		1 sheet		
	Paper output		150 sheets (70kg) face down/ one sheet (10 postcards) face up tray		
Paper size	Legal/universal or A4 cassette/ Universal cassette		1st cassette: legal13/13.5/14, letter, executive, A4, A5, B5, A6, postcard		
	Manual feeder		legal 13/13.5/14, letter, executive, A4, A5, B5, A6, C5, DL, Com-9, com-10, monarch, custom size, government postcard, reply paid postcard, end-opening envelope	legal 13/13.5/14, letter, executive, A4, A5, B5, A6, C5, DL, Com-9, com-10,monarch, custom size, government postcard, reply paid postcard, end-opening envelope, banner up to 1200mm (In case length is over 356, width would be up to 210 to 215.9)	
Min. paper size	1st tray		100mm × 148mm		
	Manual feeder		100mm × 148mm		

Category	Item	C3300n	C3400n/C3450n
Paper thickness	1st tray	64-120gsm	
	Manual feeder	64-203gsm	
	duplex (manual)	64-105gsm	
Operation panel	LED (color)	3 (Green × 1, dark amber × 2)	
	Switch	2	
Status switch/Sensor	Paper tray empty	Available	
	Paper low	N/A	
	Toner low	Available (Y.M.C.K)	
	Cover open	Available	
	Fuser temp.	Available	
	Paper size	N/A	
	Stacker full	N/A	
Communication Interface	Standard (on circuit board)	• Full-Speed USB	• Hi-Speed USB
		• Ethernet	
	Option for OEM user	N/A	
	On/off switch	Automatic	
Emulation	Standard	Hiper-C	
	Emulation switch	N/A	
Font	Bit map Type face	N/A	
	Scalable 1 Type face	N/A	
	Scalable 2 Type face	N/A	
	Scalable 3 Type face	N/A	
	Luster riser	N/A	
	Bar code	N/A	
	OCR	N/A	
	Japanese PCL font	N/A	
	Japanese PS font	N/A	
Option (Removable)	RAM set	N/A	64, 256MB
Shipping set-up	Japan	GDI model	
Others	USB-IF logo	Available	
	Windows logo	Available	
	Operation by UPS	Operation by UPS (outage free power supply) is not guaranteed. (Do not use UPS)	

1.5 Interface Specification

1.5.1 USB Interface Specification (C3400n/C3300n/C3450n)

1.5.1.1 Outline of USB Interface

(1) Basic Specification
USB (C3400n/C3450n supports Hi-Speed USB and C3300n supports Full-Speed USB.)

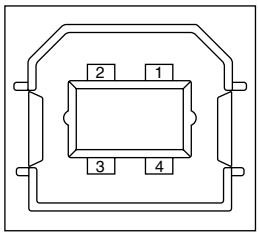
(2) Transmission Mode
Full speed (12Mbps±0.25% max.)
Hi speed (480Mbps±0.05% max.)

(3) Power Control
Self power device

1.5.1.2 USB Interface Connector and Cable

(1) Connector

• Printer side: B receptacle
Upstream port
Equivalent of UBR24-4K5C00 (made by ACON)



Connector pin arrangement

• Cable side: B plug (off)

(2) Cable

Cable length: Specification Cable of USB2.0 spec. of less than 5m.(less than 2m is recommended)
(Shielded cable is used here.)

1.5.1.3 UBS Interface Signal

	Name of Signal	Function
1	Vbus	Power Supply (+5V) (red)
2	D -	Data transmission (white)
3	D +	Data transmission (green)
4	GND	Signal ground (black)
Shell	Shield	

1.5.2 Network Interface Specification (C3400n/C3300n/C3450n)

1.5.2.1 Outline of Network Interface

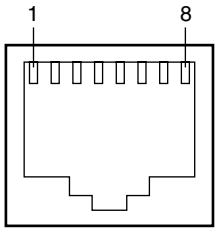
Table1.5.2 Basic Specification of Network Interface (C3400n/C3300n/C3450n)

Protocol Family	Network Protocol	Application
TCP/IP	IPv4,TCP,ICMP,UDP	LPR,RAW SNMPv1 DHCP/BOOTP HTTP

1.5.2.2 Network Interface Connector and Cable

(1) Connector

100 BASE-TX/10 BASE-T (automatic switch, no simultaneous use)



Connector pin arrangement

(2) Cable

Unshielded twist pair cable with RJ-45 connector (Category 5 is recommended.)

1.5.2.3 Network Interface Signal

Pin No.	Signals	Signal Direction	Functions
1	TXD+	FROM PRINTER	Send Data +
2	TXD-	FROM PRINTER	Send Data -
3	RXD+	TO PRINTER	Received Data +
4	-	-	Unassigned
5	-	-	Unassigned
6	RXD-	TO PRINTER	Received Data -
7	-	-	Unassigned
8	-	-	Unassigned

2. OPERATION DESCRIPTION

2.1 Electrophotographic Process Mechanism

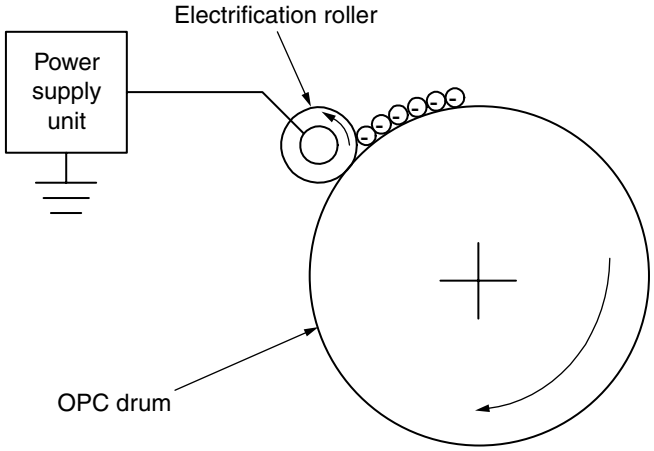
(1) Electronic photography Process

Electronic photography process is outlined as follows:

1. Electrification
   Electric voltage is impressed on CH roller and the surface of CPC drum is electrified.
2. Exposure
   LED head radiates light on the electrified surface of OPC drum following the image signal. Electric charge on the radiated OPC drum surface abates depending on the intensity of light and static latent image is formed on the OPC drum surface.
3. Development
   Electrified toner is adhered to the static latent image on the OPC drum by static electricity and a visible image is formed on the OPC drum surface.
4. Transcript
   A sheet of paper is put upon the OPC drum surface and the toner image is transferred on the paper by impressing electric charge on its back side by the transcript roller.
5. Drum Cleaning
   Drum cleaning blade eliminates the remaining toner on the OPC drum after transfer.
6. Belt Cleaning
   Belt cleaning blade eliminates the remaining toner on the belt.
7. Fusing
   The toner image on the paper is fused by adding heat and pressure.

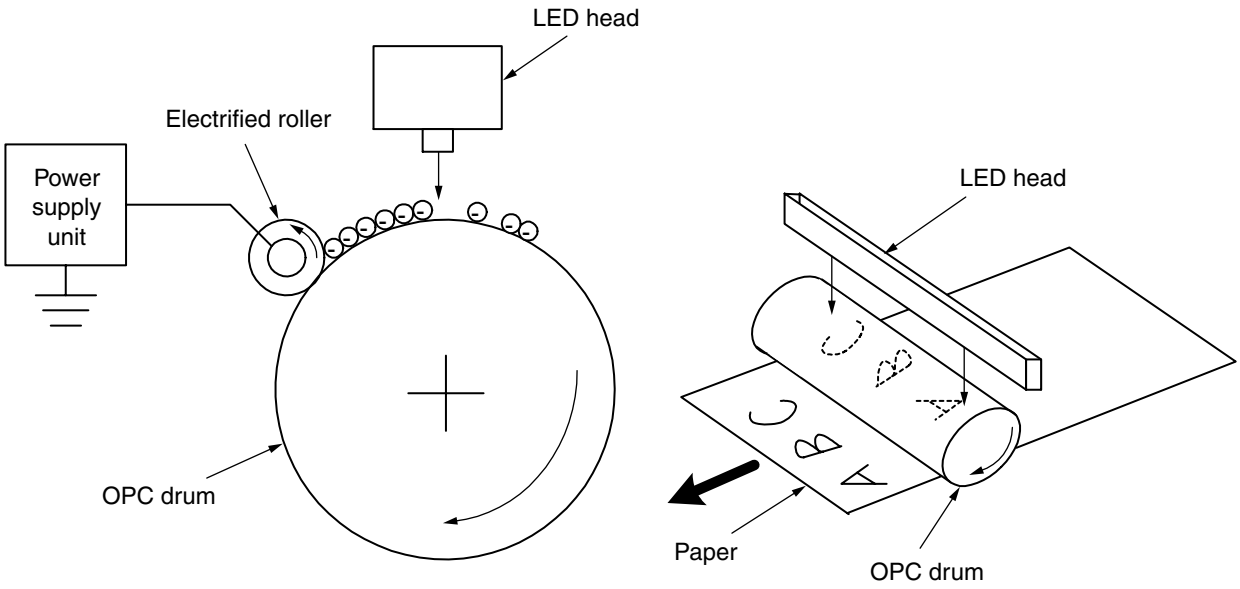
(2) Electrification

Electric voltage is impressed on electrification roller touching on the OPC drum surface and thus the OPC drum surface is electrified.



(3) Exposure

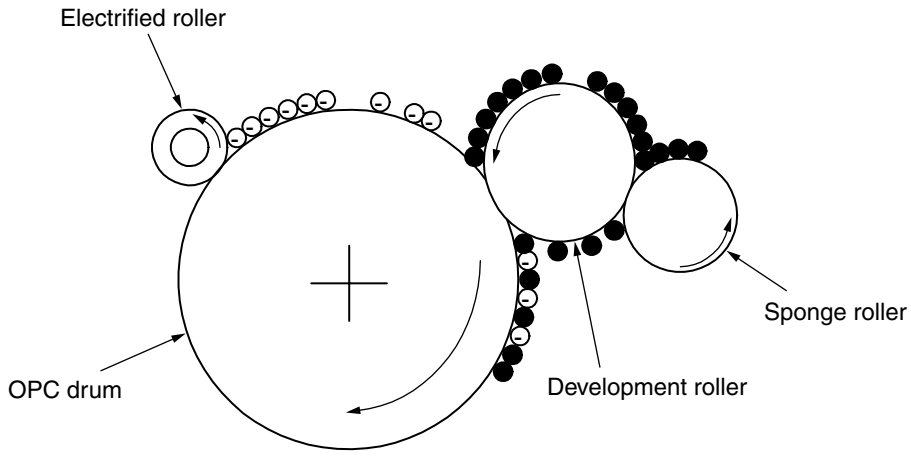
The light emanated from the LED head is radiated on the OPC drum surface. The electric charge on the radiated portion of the OPC drum surface abates by intensity of the light and a static latent image is formed on the OPC drum surface.



(4) Development

Adhere the toner to the static latent image on the drum surface and change it to the toner image.

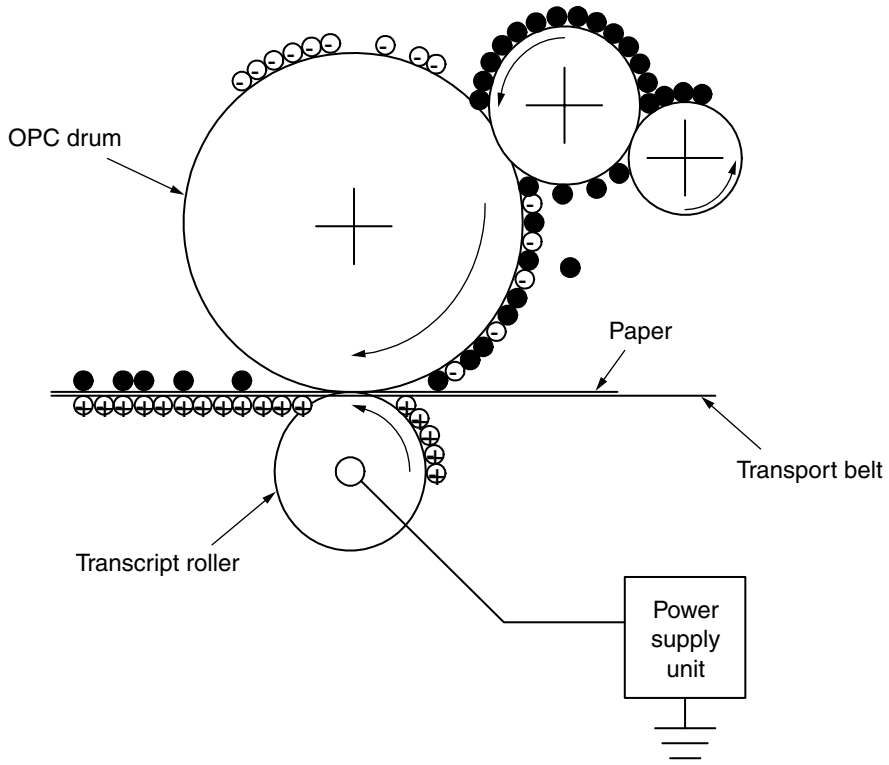
1. The sponge roller let the toner adhere to the development roller.



2. The static latent image on the OPC drum surface is changed to a visible image by the toner.

(5) Transcript

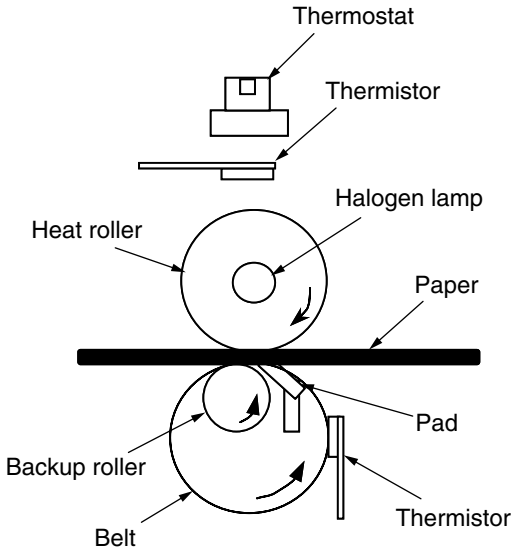
A sheet of paper is placed under the OPC drum surface and is given electric charge from the back side by the transcript roller. When a high voltage is impressed on the transcript roller, the electric charge generated by the transcript roller moves over to the paper surface at the interfacing part of the transcript roller and the toner is absorbed to the paper surface from the OPC drum surface.



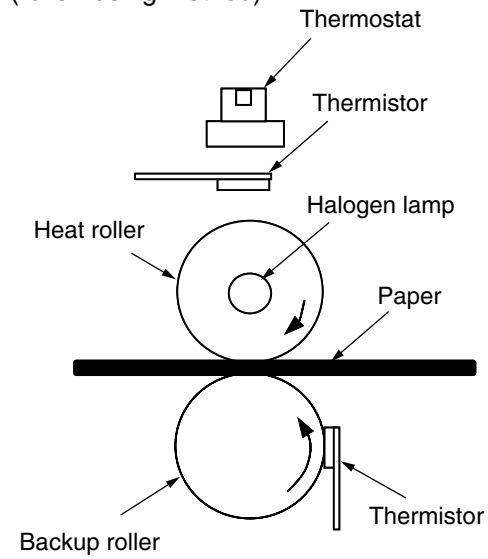
(6) Fusing

The toner image transferred on the paper is impressed with heat and pressure and is fused to the paper when the paper passes through the heat roller and the back-up roller.
Further, a thermostat is equipped for the safety's sake and if the temperature of the heat roller rises above a certain degree, the thermostat opens and shuts the power supply to the heater.

C3400/C3450n (belt fusing method)



C3300 (roller fusing method)

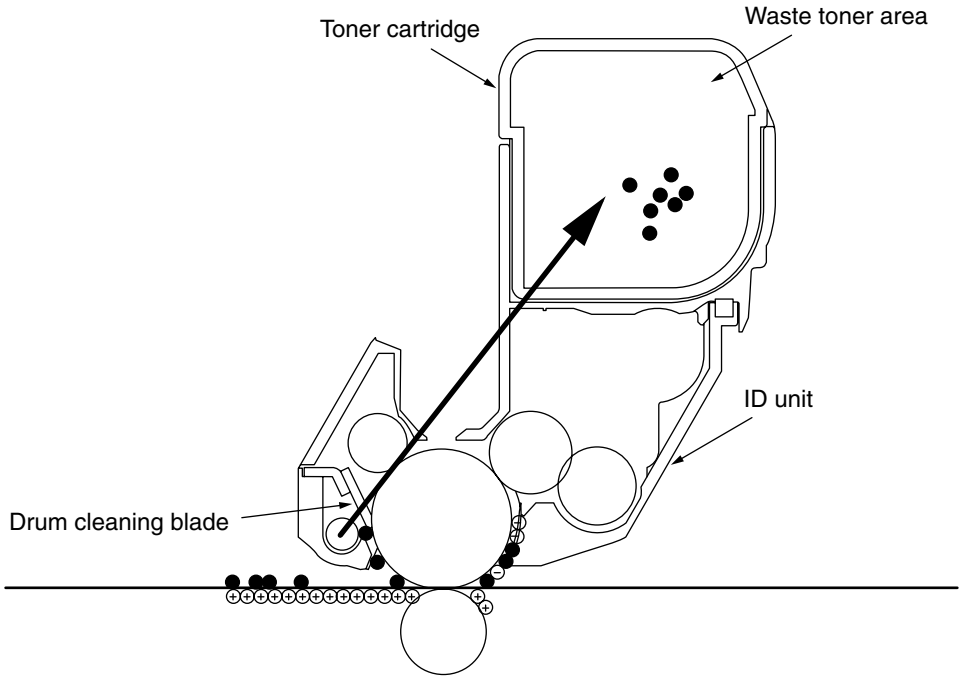


Setting of Fusing Temperature

Paper Thickness	Paper Type Setting	Temperature Setting
Thin	Light	Middle temp.
↓	Medium	High temp.
	Heavy	Middle temp.
Thick	U.Heavy	Low temp.

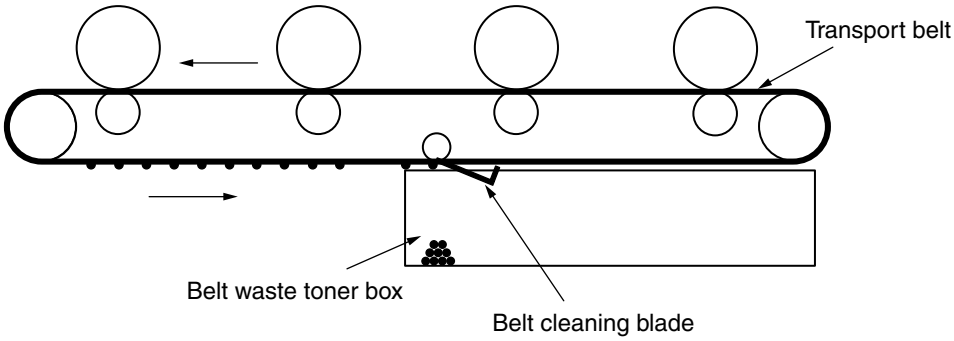
(7) Drum Cleaning

The toner not transferred and remaining on the OPC drum is scraped away by the drum cleaning blade and is collected in the waste toner area of the toner cartridge.



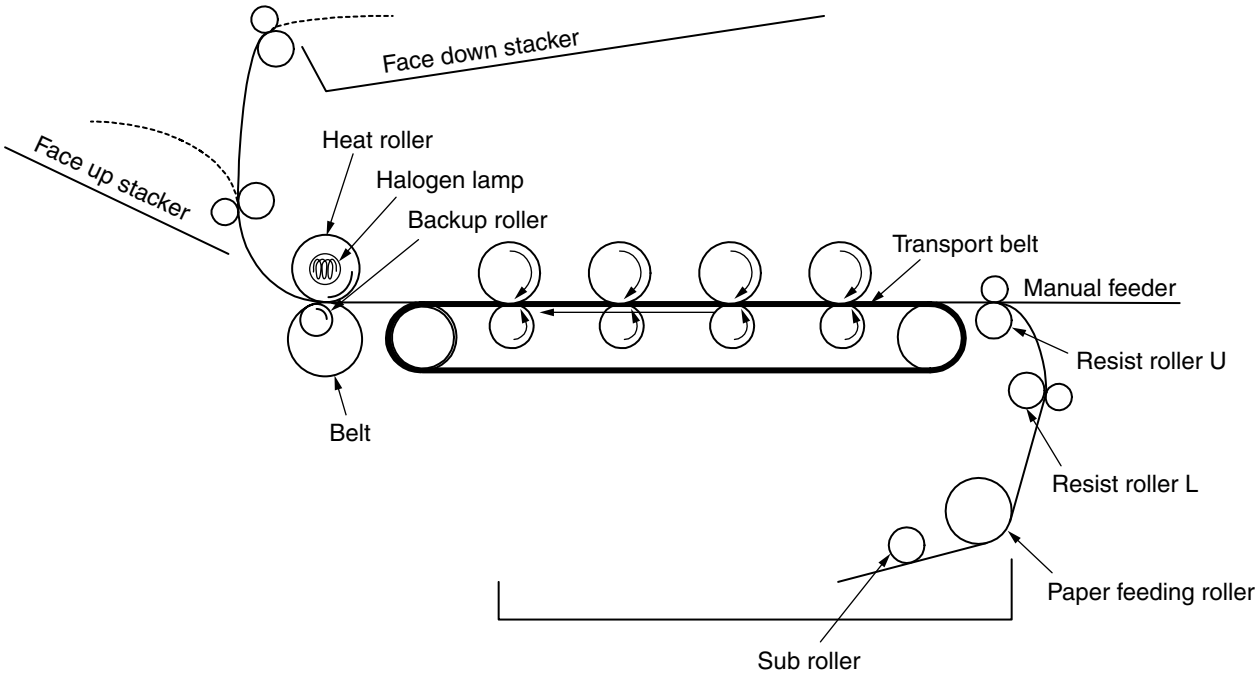
(8) Belt Cleaning

The toner remaining on the transcript belt is scraped away by the belt cleaning blade and is collected in the waste toner box of the transcript belt unit.



2.2 Printing Process

The paper feeded from tray 1 is transported by the resist roller L and transport roller. When the paper is feeded by the manual feeder, it is transported by the resist roller U. Then, the paper transported is developed into a toner image not yet fused on the paper through electronic photography process in the order of KYMC. After that, the image is fused by heat and pressure while passing through the fusing unit. After fusing, the paper is discharged on the face up or face down stacker through the discharge method opted by opening or shutting of the face up stacker.



(1) Paper Feeding from the 1st Tray

1. As shown in Figure 2-1, while the solenoid is on and the resist motor turns counterclockwise, a sheet of paper is transported until the IN1 sensor is on. (When the solenoid is on, the paper feeding roller operates.)
2. When the paper turns the IN1 sensor on, a certain more sheets of paper are transported and thrusted against the resist roller. (This process corrects the paper skew.)
3. As shown in Figure 2-2, turn the solenoid off and transport the paper by the resist roller L. (When the solenoid is off, the resist roller operates.)

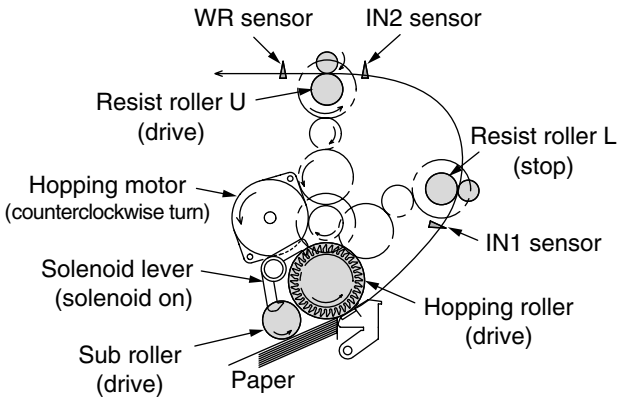


Figure 2-1

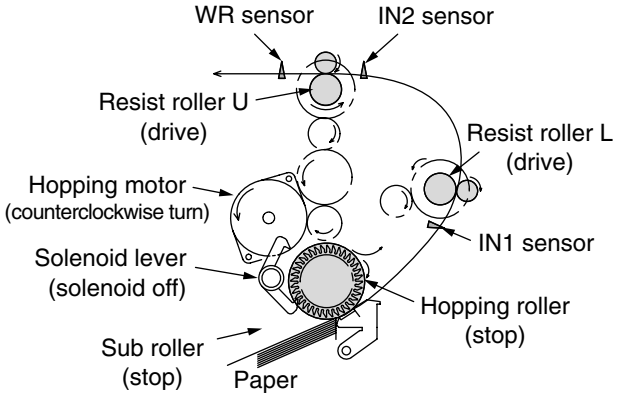


Figure 2-2

(2) Paper Feeding from Manual Feeder

1. Thrust the paper against the resist roller U. (This process corrects the paper skew.)
2. As shown in Figure 2-3, the resist motor turns counterclockwise and the paper is transported by the resist roller U. (When the resist roller turns counterclockwise, the resist roller U drives.)

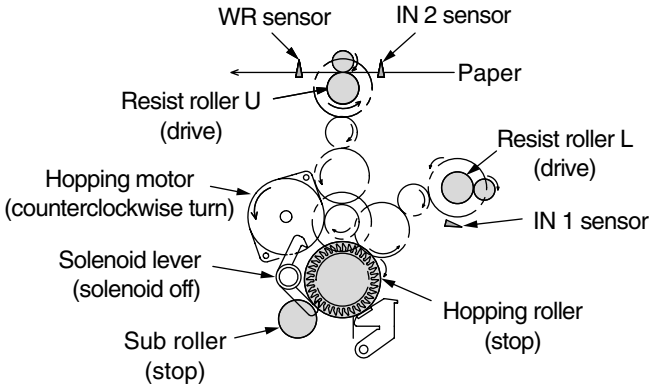


Figure 2-3

(3) Transport Belt

1. When the transport belt motor turns in the direction of the arrow, the transport belt starts to operate. The belt unit is composed of drums of each color above and the transport rollers immediately below them with the transport belt in-between. When a certain voltage is impressed, the transport belt and the transport rollers send the paper on the transport belt to the fuser while transferring the toner images on the drums of each color.

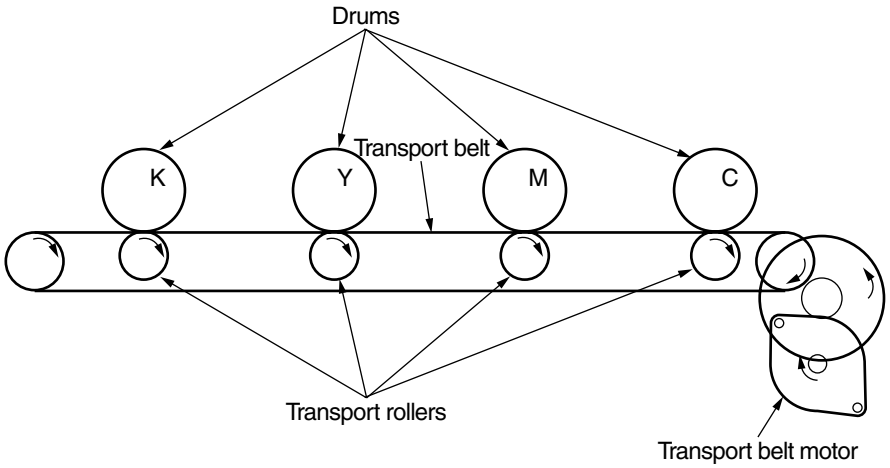


Figure 2-4

(4) Up and Down Movements of ID Units

1. The up and down movements of the ID units are performed by the drive of the lift-up motor.
2. Figure 2-5 shows movements of each ID unit at the time of printing. When the lift-up motor turns clockwise, the lift-up link slides to the left and each ID unit is in the state of down as shown in Figure 2-6. That condition enables color printing.
3. Figure 2-6 shows movements of each ID unit at the time of monochrome printing. When the lift-up motor turns counterclockwise, the lift-up link slides to the right and the units other than K-ID are in the state of up as shown in Figure 2-7. That condition enables monochrome printing.

Movement of each ID unit at the time of color printing

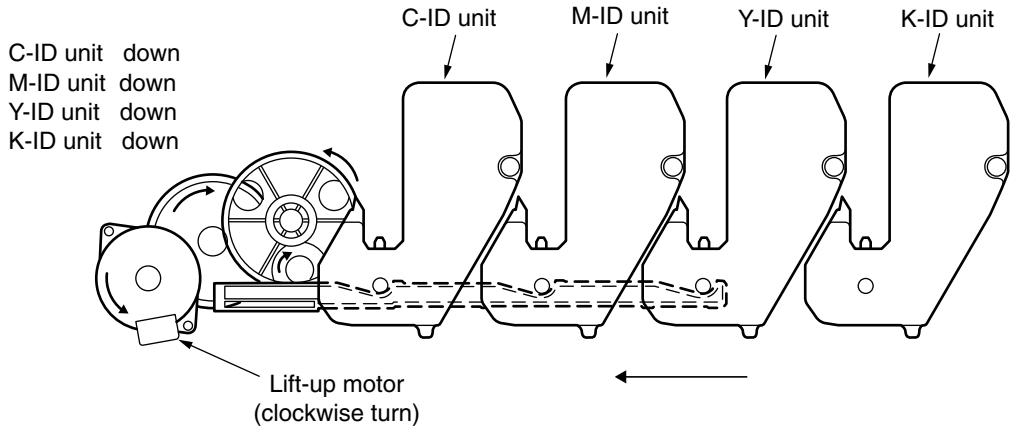


Figure 2-5

Movement of each ID unit at the time of monochrome printing

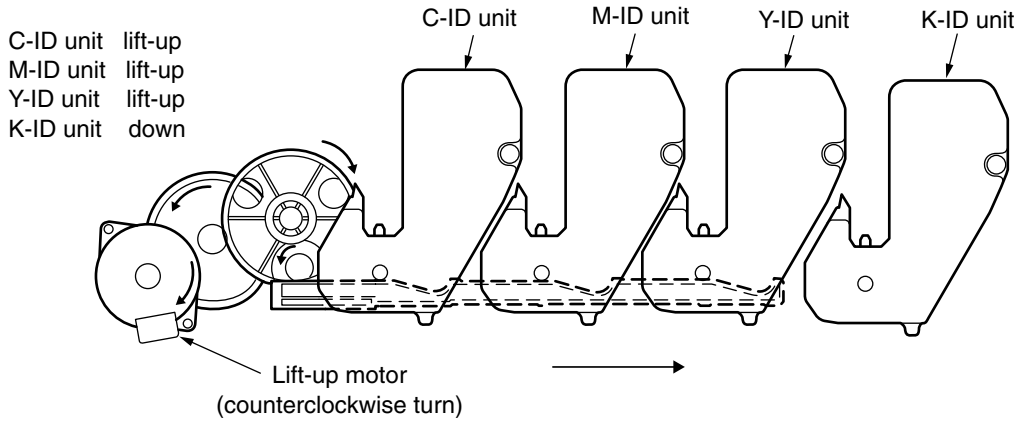


Figure 2-6

(5) Fusing Unit and Paper Output

1. As shown in Figure 2-7, the fuser unit and output roller are driven by the pulse motor. When the fuser motor turns counterclockwise, the heat roller turns. This roller fuses the toner image ‘on the paper with heat and pressure.
2. At the same time, the output roller turns and ‘sends out the paper.

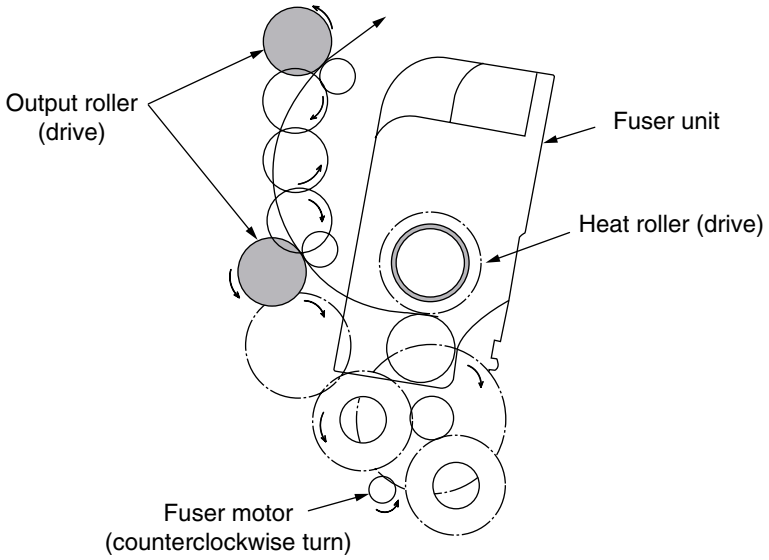


Figure 2-7

(6) Cover Open Operation of Color Registration Sensor and Density Sensor

1. As shown in Figure 2-8, when the fuser motor turns clockwise, the cover open gear also turns and the covers of the color registration sensor and the density sensor will open.
2. When the fuser motor turns counterclockwise, interlocking of the cover open gear is released and the covers of the color registration sensor and the density sensor will close.

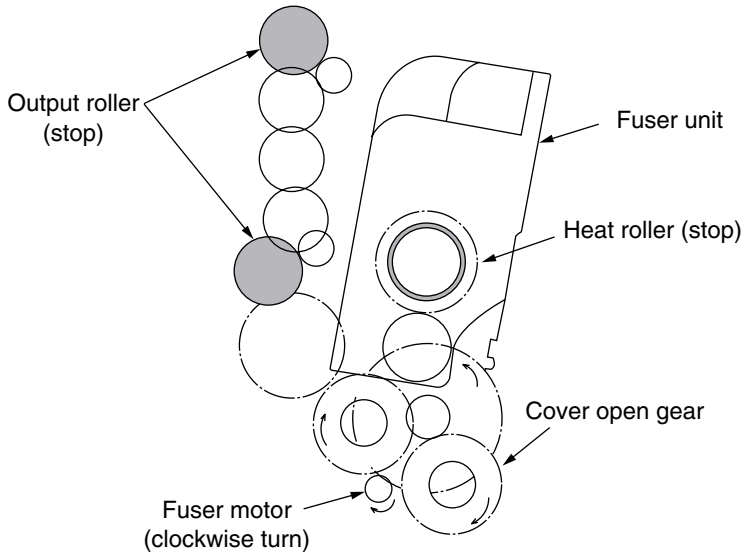


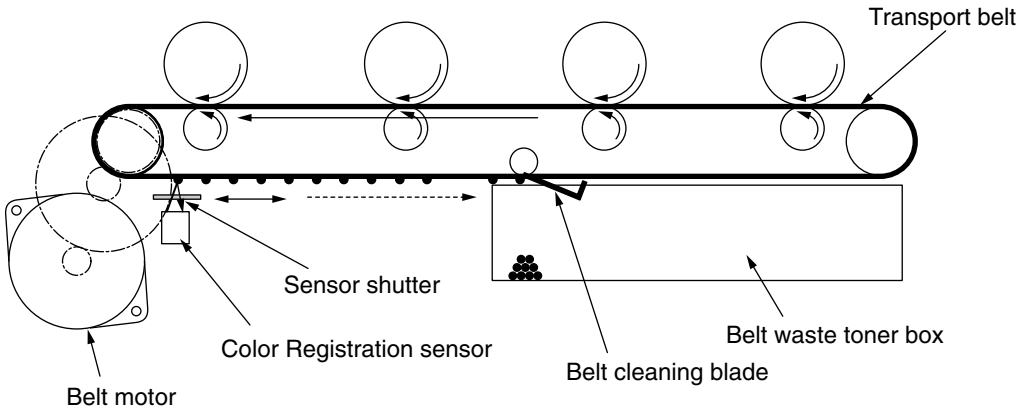
Figure 2-8

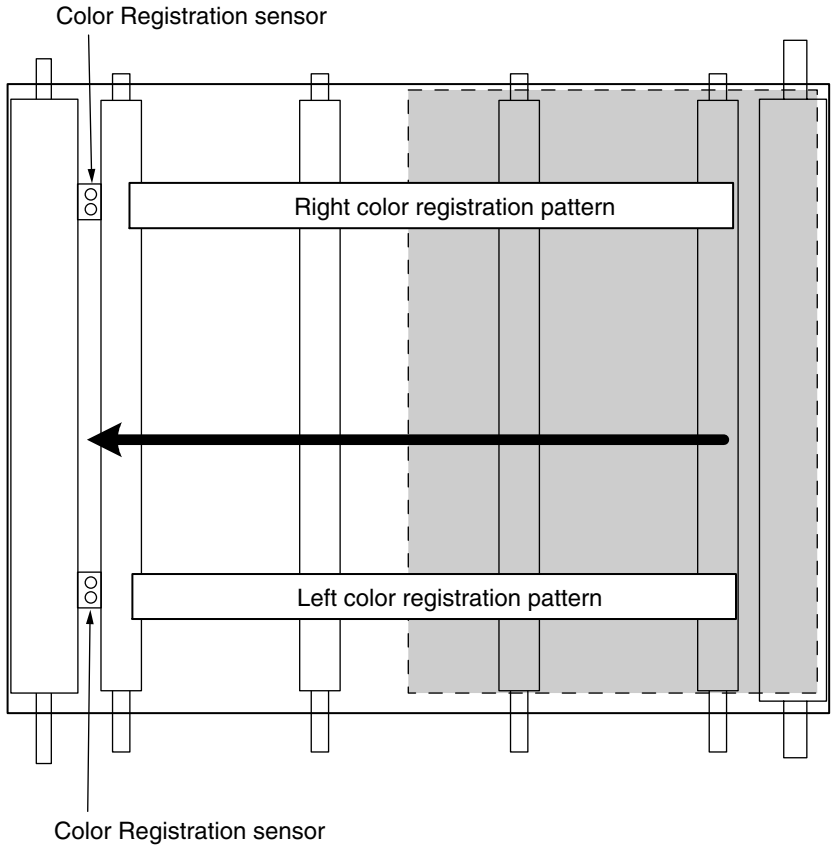
Outline of Color registration Method

Color registration is performed by reading the correction pattern printed on the belt using the sensor placed in the sensor shutter equipped under the belt unit. The correction is made by identifying the pattern using this sensor.
Timing of automatic activation of color registration:

- At the time of switching the power on
- At the time of closing the cover after opening it over 5 seconds
- When over 400 sheets are printed after a color registration was made previously

Correction errors can be caused by the amount of toner which generates the pattern, toner stain on the sensor, malfunction of shutter opening and closing. However, as an error may not be displayed on the operation panel, it may be necessary to confirm the error display by forcible execution of the color registration test function (2.4.1.5.3) using the maintenance utility.





Error Confirmation Method and Countermeasure

Errors should be confirmed by using the color registration test function of the maintenance utility (2.4.1.5.3).

Countermeasures to each error are:

- SNS CARIBRAT(L or R), D-RANGEL(L or R)

  Confirmation 1 When the above is displayed, check the connection of the sensor cable (FFC). If the connection is found abnormal, correct it to the normal state.

  Confirmation 2 Check the surface of the sensor to confirm if it is stained by the toner, paper dust, etc. If stained, wipe the surface neatly.

  Confirmation 3 Confirm adequacy of opening and shutting of the sensor shutter by MOTOR& CLUTCH TEST of the maintenance utility. If a malfunction is found, replace the shutter unit .

- BELT REFLXERRR

  Confirmation 4 When the above is displayed, confirm the cleaning state of the toner remaining on the belt surface besides the above confirmations 1, 2 and 3. Remove the belt unit and confirm if the belt surface is cleaned neatly by turning the drive gear placed in the left rear side.
  Replace the belt unit if the toner remains on the belt surface and the surface is not cleaned despite of turning of the drive gear.

- (Y or M or C) LEFT. (Y or M or C) RIGHT, (Y or M or C) HORIZONTAL

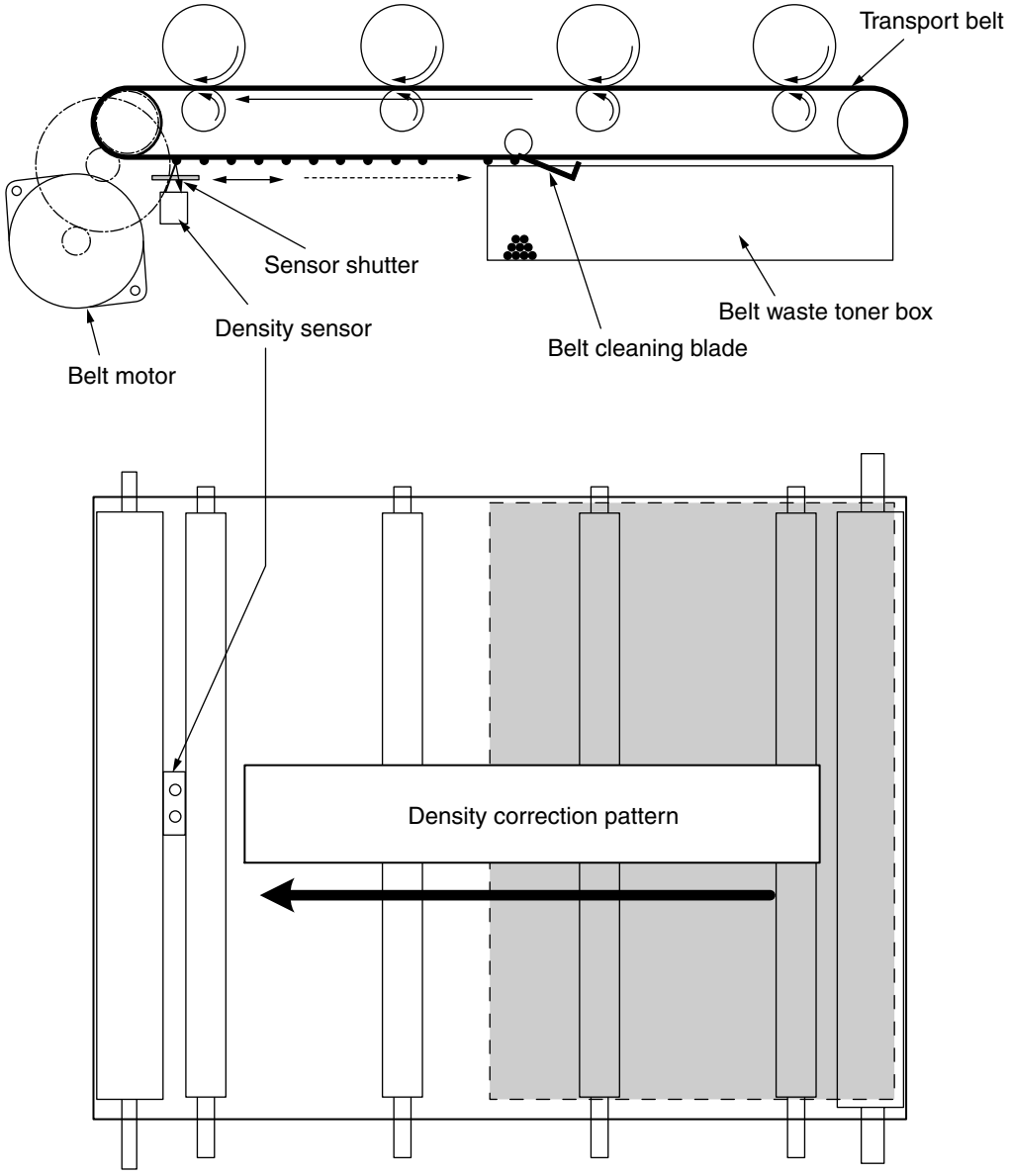
  Confirmation 5 When the above is displayed, confirm if it is the toner insufficiency that has caused NG color generation and replace the cartridge if necessary.

Outline of Density Correction Method

Density correction is made by identifying the correction pattern printed on the belt using the sensor installed in the sensor shutter under the belt unit.
Timing of automatic activation of density correction

- When the circumstance is significantly different from the previous work performance at the time when the power is to be switched on.
- When at least one of the 4 ID count values is almost new at the time when the power is to be switched on.
- When the ID count value is over 500 after the previous work performance.

Correction error can be caused by the amount of toner which generates the pattern, toner stain on the sensor, malfunction of shutter opening and closing. However, as an error may not be displayed on the operation panel, it may be necessary to confirm the error display by forcible execution of the density correction test function (2. 4. 1. 5. 3) using the maintenance utility.
Error Confirmation Method and Countermeasure



Errors should be confirmed by using the density correction test function of the maintenance utility (2.4.1.5.4).

Countermeasures to each error are:

- CALIBRATION ERR, DENS SENSOR ERR

  Confirmation 1 When the above is displayed, check connection of the sensor cable. If the connection is found abnormal, correct it to the normal state.

  Confirmation 2 Check the surface of the sensor to confirm if it is stained by the toner, paper dust, etc. If stained, wipe the surface neatly.

- DENS SHUTTER ERR

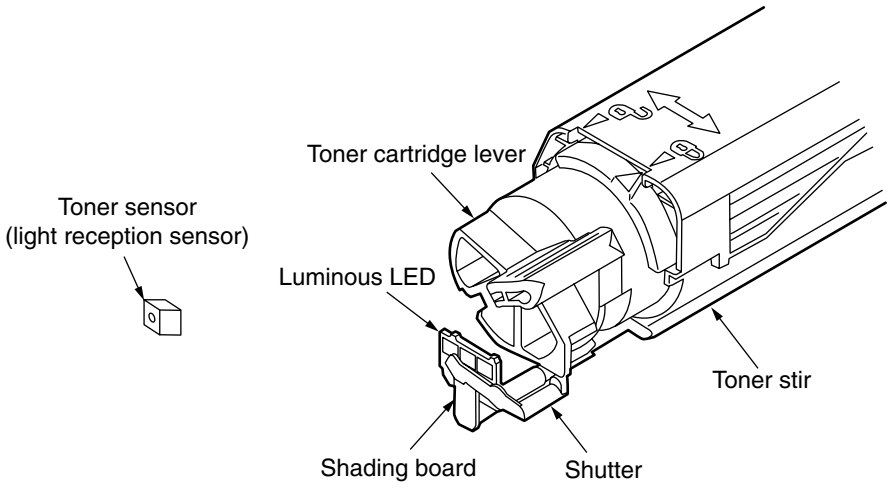
  Confirmation 3 Confirm adequacy of the opening and shutting of the sensor shutter by MOTOR&CLUTCH TEST of the maintenance utility. If a malfunction is found, replace the shutter unit.

- DENS ID ERR

  Confirmation 4 Remove the ID unit to confirm if the surface of the drum is covered with abnormal amount of toner. Then, replace the LED head if the focus blurs or replace the ID unit.
  When a new ID unit is to be used for trial, attach a treatment device to the ID unit lest the fuse breaks (refer to p.132).

Toner Sensor Detection Principle

Detection of the low toner is performed by the toner sensor (light reception sensor) installed inside the equipment and the luminous LED installed inside the cartridge. The shading board is installed inside the ID and rotates synchronizing with the toner stir. A shutter is attached to the ID. The shutter synchronizes with the cartridge operation lever and the toner sensor can detect whether the cartridge is installed properly. If the toner sensor is stained by the toner, etc., or the ID unit and the toner sensor are not facing each other as specified due to improper setting of the ID unit or for other reason, the detection may not be executed normally, resulting in a toner sensor error.



Toner Counter Principle

After the image data is developed into 2 value data to enable printing using the printer, the print dot number is counted by the LSI. The amount of the toner used is counted from the above count value and the remaining amount is displayed. On the other hand, detection of the low toner by the toner sensor is physically made when the amount of the toner remaining in the cartridge comes to be under certain amount.

Principles of ID, Belt and Fusing Counter

ID Counter : 1 count is the value of one third of the amount of drum rotation when three A4 sheets of paper are continuously printed.

Belt Counter : 1 count is one third of the amount of the belt rotation when three A4 sheets of paper are continuously printed.

Fusing Counter : Standard is the length of Legal 13 inches sheet of paper. 1 count is the sheet of paper under that length and when the length is more than that, the number of count is decided by multiples of Legal 13 inches.(Number under the decimal point is rounded up.)

3. PRINTER INSTALLATION

3.1 Precautions and Prohibition

⚠Warning

- Do not install the printer in the vicinity of high temperature or fire.
- Do not install the printer at the place where a chemical reaction may take place (laboratory, etc.).
- Do not install the printer near flammable solution like alcohol, thinner, etc.
- Do not install the printer at the place where a small child can reach.
- Do not install the printer at an unstable place (unsteady frame, tilted place, etc.).
- Do not install the printer at a highly humid or dusty place or under the direct sunshine.
- Do not install the printer under the environment of sea breeze or caustic gas.
- Do not install the printer at a highly vibrating place.
- When you drop the printer or damage the cover, remove the power plug from the outlet and contact the Customers' Service Center.
  Electric shock, fire or injury may occur.
- Do not connect the power cord, printer cable and earth wire as otherwise directed by the Manual.
  A fire may break out.
- Do not insert a thing in the vent hole.
  Electric shock, fire or injury may occur.
- Do not place a cup with water on the printer.
  Electric shock or fire may occur
- Do not touch the fuser unit when you open the printer cover.
  Burn may occur.
- Do not throw the toner cartridge or image drum cartridge into fire.
  Burn may occur by the dust explosion.
- Do not use a highly flammable spray near the printer.
  Fire may break out as there are high temperature parts inside the printer.
- When the cover becomes abnormally hot, a smoke arises or a strange odor comes out, remove the power plug from the outlet and contact the Customers' Service Center.
  Fire may break out.
- When liquid like water drops inside the printer, remove the power plug from the outlet and contact the Customers' Service Center.
  Fire may break out.
- When a thing like a clip drops inside the printer, remove the power plug from the outlet and take out that thing.
- Do not operate or disassemble the printer as otherwise directed in the Manual.
  Electric shock, fire or injury may occur.

⚠Caution

- Do not install the printer at the place where the vent hole is blocked.
- Do not install the printer on the shaggy carpet.
- Do not install the printer at the place with little draught or without ventilation like a room with no window.
- Install the printer away from the monitor TV.
- When the printer is to be moved, hold both ends of the printer.
- This printer weighs about 21kg and should be lifted by 2 or more persons.
- When to switch the power on or while printing, do not come near the paper exit of the printer. Injury may occur.

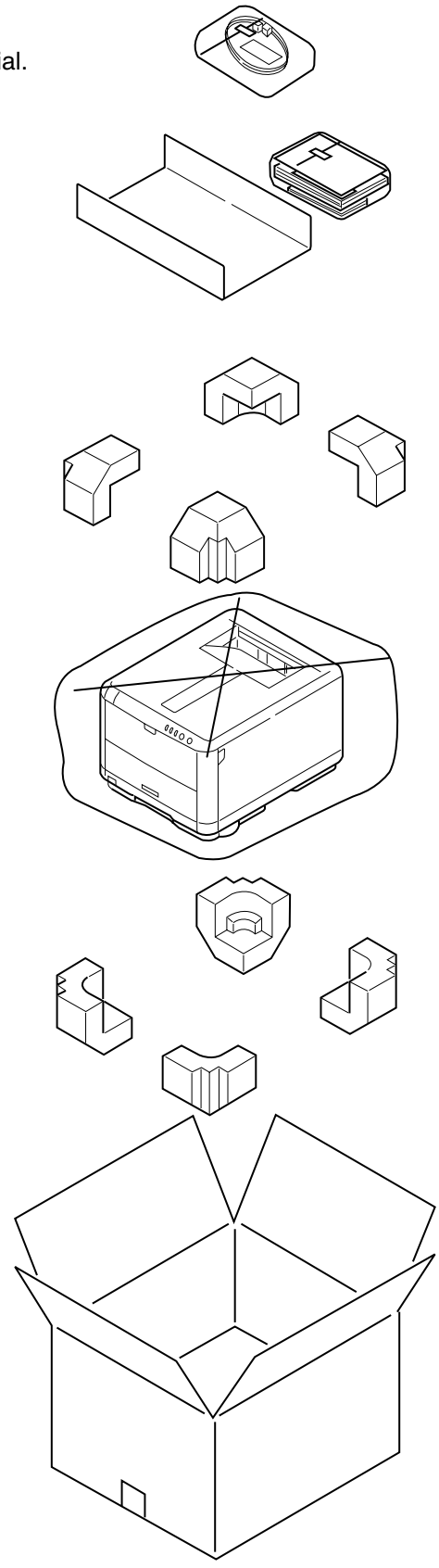
As regards the items of caution, explain to the customer showing the items of caution of the User's Manual. Particularly, explain fully about the power supply cord and earth cable.

3.2 Printer Unpacking Procedure

⚠Warning	Personal injuries may occur.	⚠

This printer weighs about 21kg. So lift it up with 2 or more persons.

- Open the upper lid.
- Take out accessories.
- Remove the upper buffer material.
- Take out the equipment



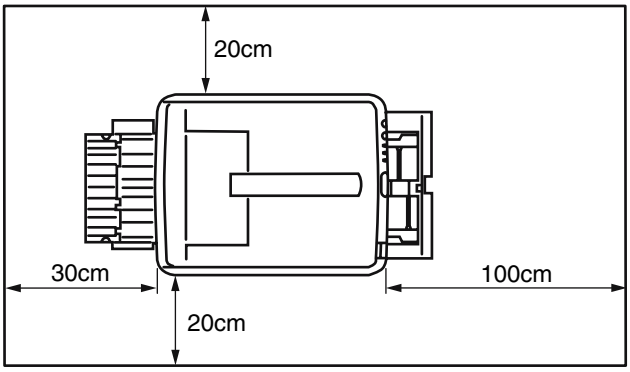
3.3 Printer Installation Instructions

- Install the printer at a place under the following temperature and humidity:
  Ambient Temperature : 10 to 32°C
  Ambient Humidity : 20 to 80% relative humidity
  Maximum Wet-Bulb Temperature : 25°C
- Be careful not to be bedewed.
- When the printer is to be installed at a place where the humidity is less than 30%, use a humidifier or a static electricity prevention mat.

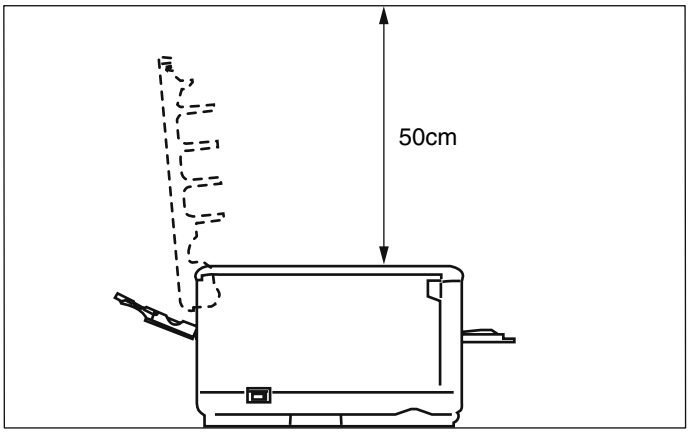
Installation Space

- Place the printer on a flat desk with enough space for the legs of the printer.
- Secure enough space around the printer.

Top View



Side View



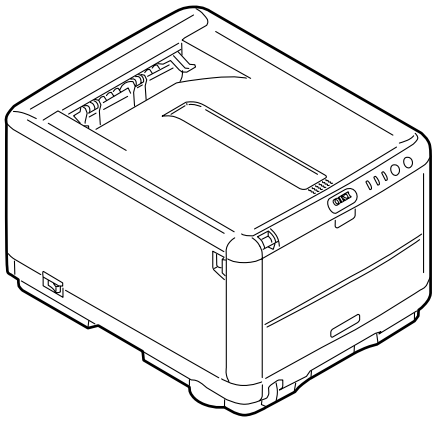
3.4 Packed Units and Attachments

- Confirm whether there are scratches, stains, etc. on the exterior of the machine.
- Confirm whether there are lacking items, damages, etc. among the accessories.
- If anything unusual is found, contact the user's section in charge and follow its instruction.

⚠Warning	Personal injuries may occur.	⚠

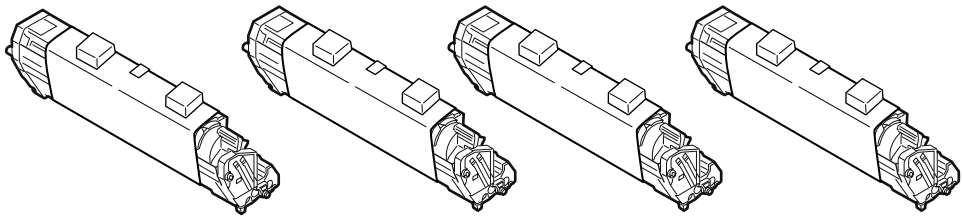
This printer weighs about 21kg and should be lifted by 2 or more persons.

☐ Printer (main body)



C3400n/C3300n/C3450n

☐ Image Drum Cartridges with Starter Toner Cartridges (4 sets) (installed in the printer)



Explain to customers that the toner cartridge and the image drum cartridge are separable.

☐ Printer Software CD-ROM
☐ LED Lens Cleaner
☐ Power Cord
☐ Warranty and Registration Card
☐ Users Manual (Setup Guide)
☐ Users Manual on CD-ROM
☐ Quick Guide
☐ Quick Guide Bag

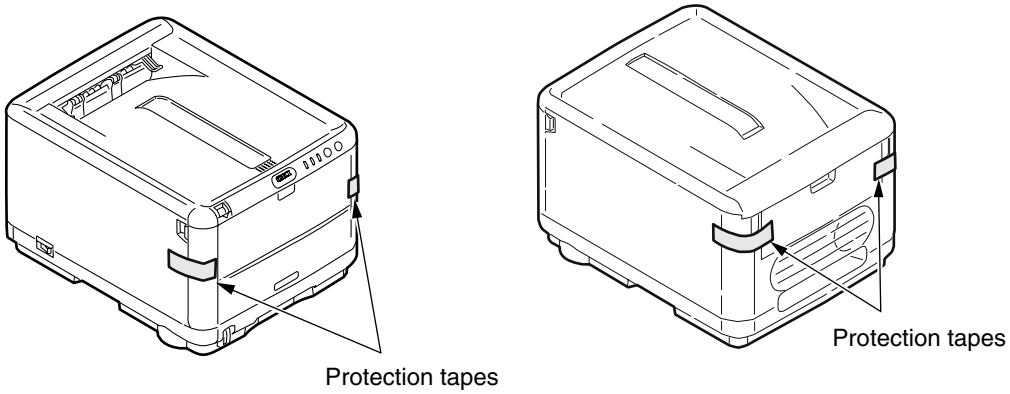
Note! The printer cable is not included in the accessories.

3.5 Assembly Procedure

3.5.1 Printer Main Body

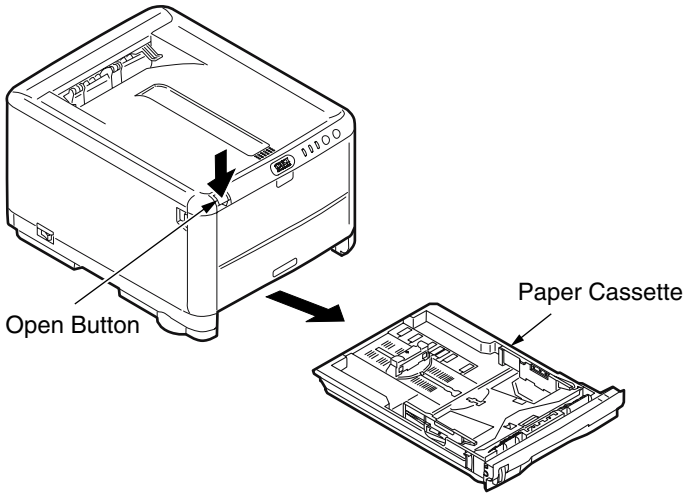
Remove Protective Equipment

(1) Remove front protection tapes (2 places) and back protection tapes (2 places) of the printer.



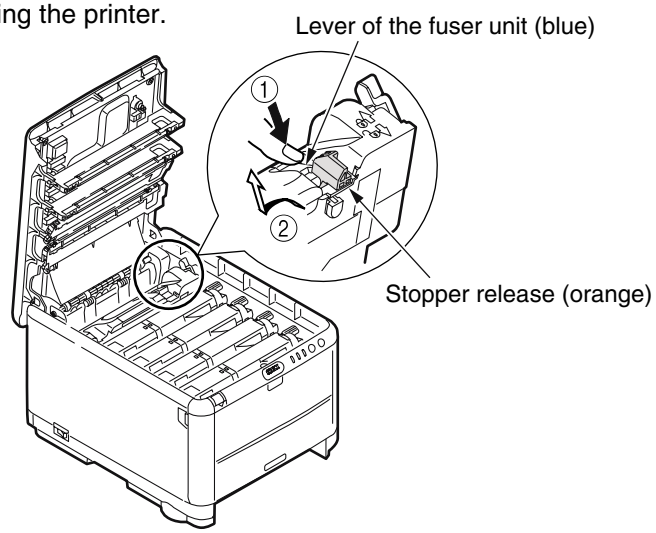
(2) Pull out the paper cassette.

(3) Press the open button and open the top cover.



(4) Remove the stopper release (orange color) while pushing down the lever (blue) of the fuser unit in the direction of arrow ①.

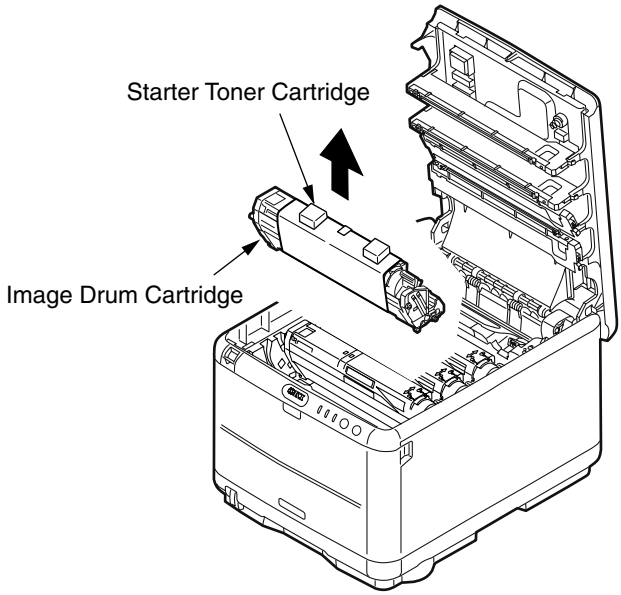
Note! Explain to the customer that the stopper release must be kept as it would be used at the time of transporting the printer.



Install Image Drum Cartridges

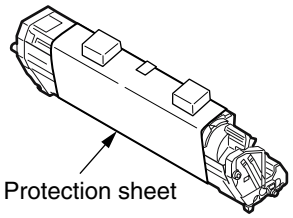
(1) Pull out the image drum cartridge (4 pieces) gently with the toner cartridge attached.

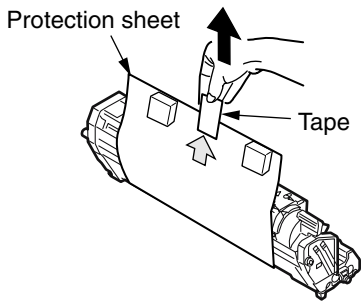
Note! • Handle the image drum (green tube portion) very carefully as it is quite easily injured.
• Do not expose the image drum cartridge to direct sunshine or bright light (approximately 1,500 lux or more) . Do not leave it more than 5 minutes under the room light.
• Do not move the blue lever of the cartridge at this stage.



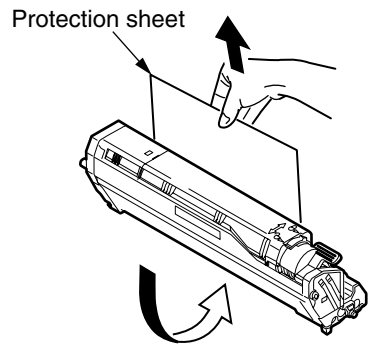
(2) Place the image drum cartridge on a flat desk, remove the tape which fastens the protection sheet and pull it out in the direction of arrow.

Note! Do not work on the image drum off the desk top.



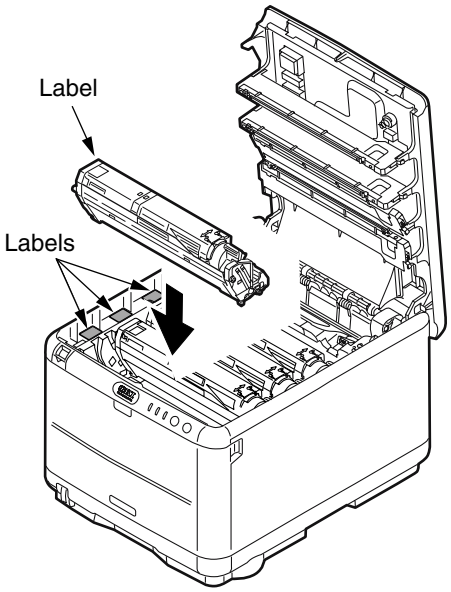


(3) Pull out protection sheet 2 from the image drum cartridge in the direction of arrow.



(4) Conform the label color of the image drum cartridge to the label color of the printer.

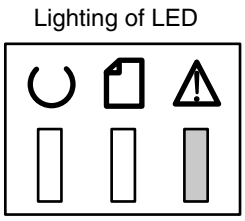
(5) Return the 4 image drum cartridges gently.

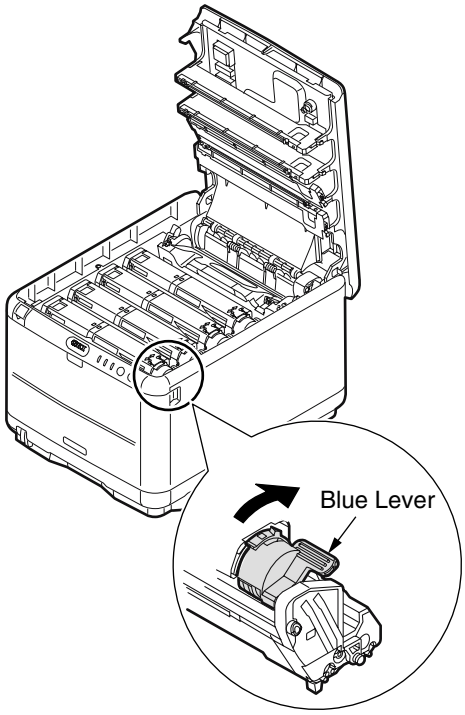


(6) Turn the 4 blue levers of the toner cartridges fully in the direction of arrow.

Note! • The starter toner (the toner cartridge attached to the product at the time of purchase) can print approximately 1,000 sheets of A4 paper in case of 5% coverage. (Approximately 500 sheets in case of OEL/AOS specification)

• Confirm whether the lever of the toner cartridge is turned fully in the direction of arrow when the LED lighting of no toner on the operation panel is on indefinitely.



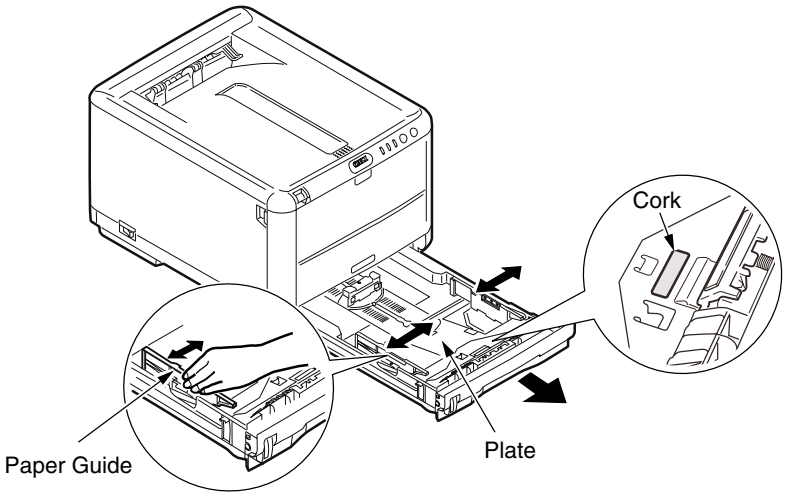


Load Paper in Paper Cassette

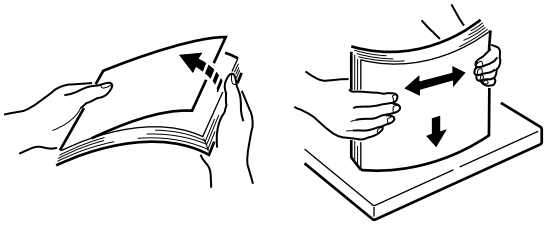
(1) Pull out the paper cassette.

Note! Do not remove the cork on the plate.

(2) Conform the paper guide to the paper size and fix it firmly.



(3) Shuffle the sheets of paper and arrange up, down, left and right properly.

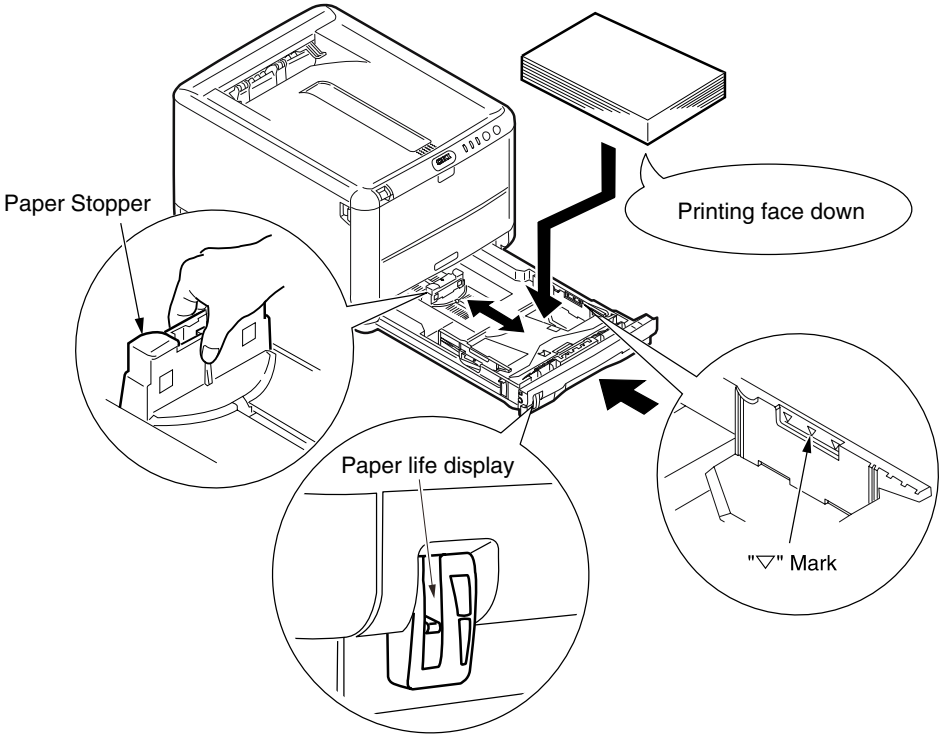


(4) Make the printable side down and set the paper.

Note!
- Place the paper in front of the paper cartridge.
- Set the paper not to exceed "▽"mark of the paper guide. (250 sheets weighing 70kg)

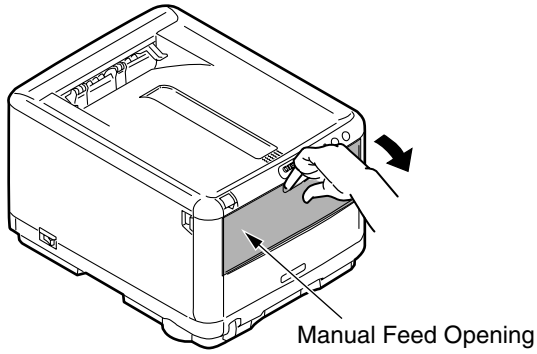
(5) Fix the paper by the paper stopper.

(6) Return the paper cassette to the printer.



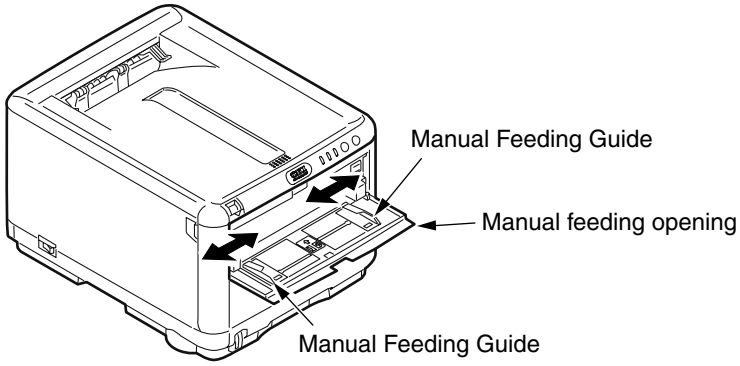
Load Paper in the Manual Feed Opening

(1) Put a finger in the dent at the center of the manual feed opening and pull forward.

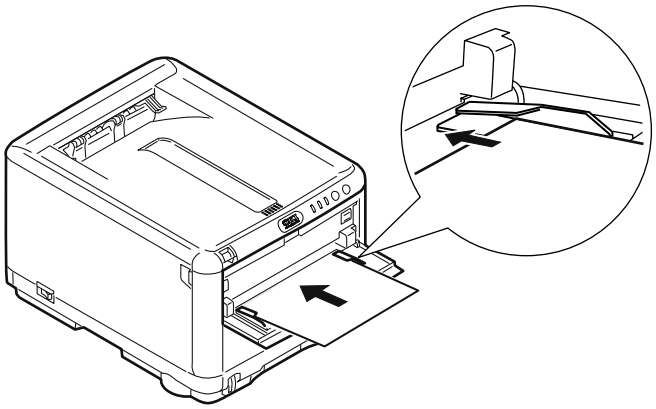


(2) Conform the manual feeding guide to the size of the paper.

(3) Arrange the left and right of the paper.



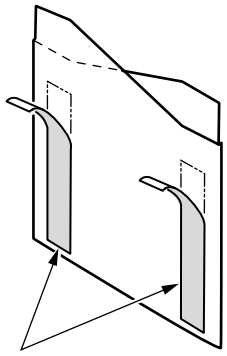
(4) Make the printing side up and insert the paper straight to the rear end along the manual feed guide.



Preserve the Quick Guide

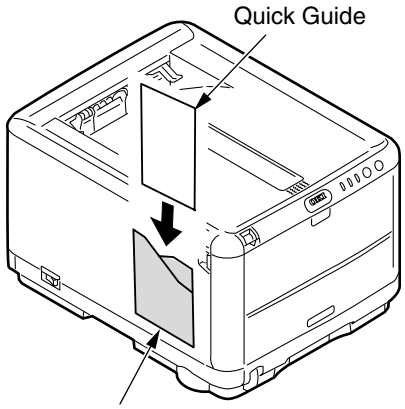
Paste the quick guide case to the printer and put in the quick guide.

(1) Turn around the quick guide case and remove the covers of the Double faced adhesive tapes (2 places).



Double faced adhesive tapes

(2) Paste the case to the printer.



Note! Paste the case so as not to block the vent hole on the back of the printer.

3.5.2 Power Cable Connection

Conditions for Power Supplies

- Observe the following conditions:
  Alternate Current (AC) : 110 ~127VAC(Range 99~140VAC)/220 ~240VAC(Range 198~264VAC)
  Power Supply Frequency : 50Hz or 60Hz±2%
- Use a voltage regulator when the power supply is not stable.
- The maximum power consumption of this printer is 980W. Confirm that the power supply has sufficient extra capacity.

⚠**Warning**	It may expose you to electric shocks or cause a fire.	

- Never fail to switch off the power supply at the time of connection or removal of the electric cord and earth cable.
- Always connect the earth cable to the earth terminal equipped only for that purpose. Never connect the earth cable with water pipe, gas pipe, telephone cable earth terminal, lightening rod, etc.
- Always grasp the power plug at the time of connection and removal of the electric cord.
- Always make sure that the electric plug is inserted fully into the outlet.
- Do not connect or disconnect the electric plug with the wet hand.
- Do not install the electric cord at the place liable to be stepped on and do not put things on the electric cord.
- Do not bundle up or tie up the electric cord
- Do not use the damaged electric cord.
- Do not put many loads on one electric outlet.
- Do not connect this printer to the same outlet with other electric machines. Particularly, erroneous operation may occur by electric noise when the same outlet is shared by the air conditioner, duplicator, shredder, etc. at the same time. When the same outlet had to be used, use a noise filter or noise cut transformer on the market.
- Use the attached electric cord only.
- Do not use an extension cord. Use the cord of over rating 15A if you had to use one.
- When you use the extension cord, the printer may not operate normally due to the drop of AC voltage.
- Do not shut down the power supply or remove the power plug while printing.
- Disconnect the power cord when the printer would not be used for some long while due to consecutive holidays or journey.

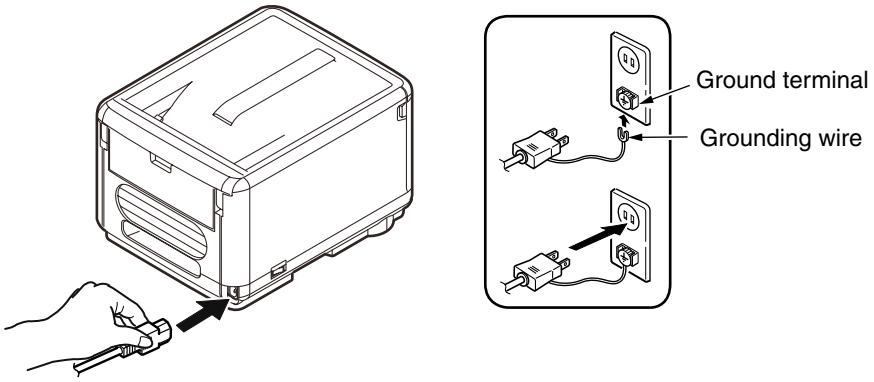
As to the connection of the electric cord and earth cable, explain fully to the customer showing the User's Manual.

Connect Power Supply Cord

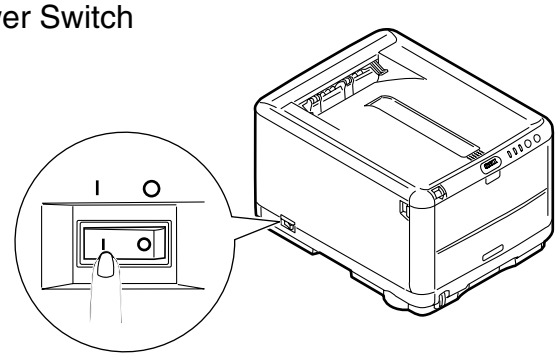
Note! Be certain the power switch is placed in the OFF (O) position.

(1) Insert the electric cord in the printer.

(2) Insert the plug in the outlet after connecting the earth cable with the earth cable terminal of the outlet.

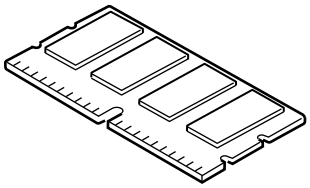


Press ON (I) of Power Switch



3.5.3 Installation of Optional Components

(1) Extension Memory Installation



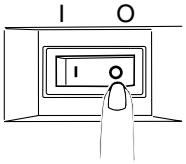
C3400n/C3450n Additional Memory

Type	Memory Capacity (Total Memory)
N/A (standard)	32MB (32MB)
MEM64D	+64MB (96MB)
MEM256D	+256MB (288MB)

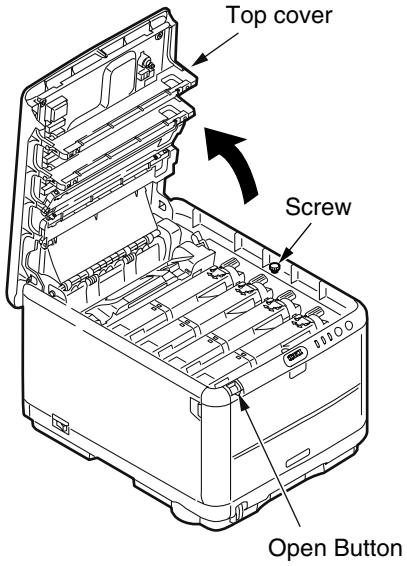
Note!
- You must use genuine Oki Original. Otherwise, the memory will not work.
- For banner-sheet printing, use of additional memory of more than 64MB is recommended.
- The slot for memory is one slot.
- C3400n/C3450n additional memory (MEM64D/256D) is interchangeable with the memory of the former C5200 (MLMEM64B/256B).

Switch the power supply of the printer off and pull out the electric cord.

Note! If installed with the switch on, an electric shock or a trouble to the printer may occur.



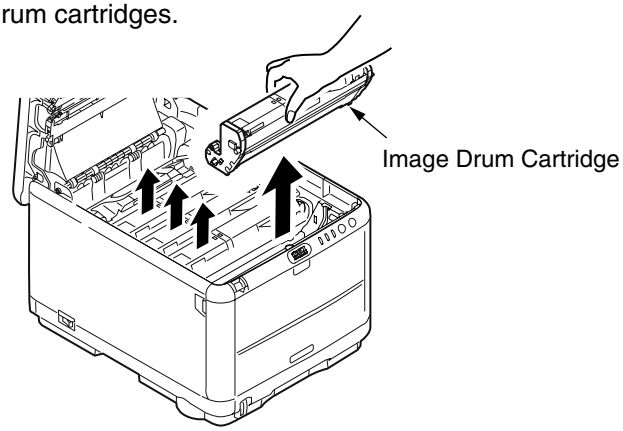
Open the top cover.



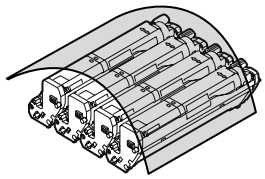
Eliminate static electricity by touching a screw.

Remove the image drum cartridges.

(1) Remove the 4 image drum cartridges.



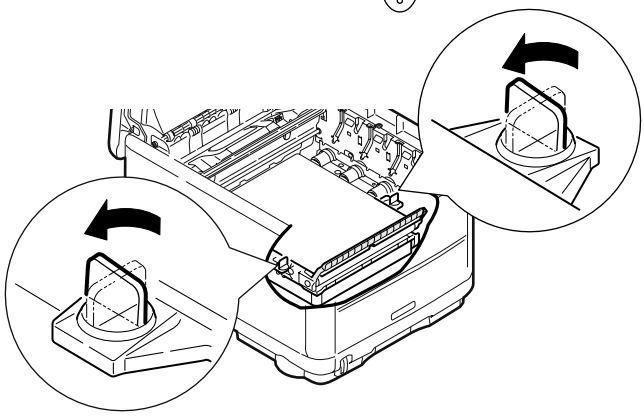
(2) Cover the removed image drum cartridges with a sheet of black paper.



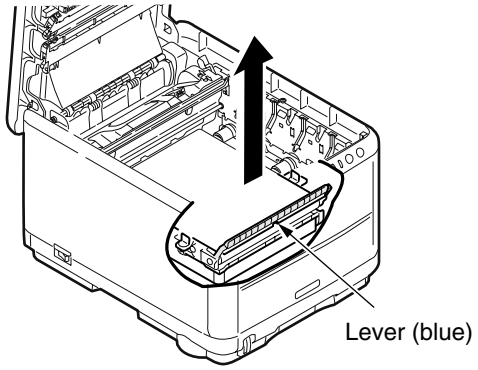
Note!
- As the image drum (green tube portion) is quite liable to injury, take care fully at the time of handling.
- Do not expose the image drum cartridge to the direct sunshine or bright light (approximately more than 1,500 lux). Do not leave it more than 5 minutes under the room light.

Remove the belt unit.

(1) Turn the lock levers (blue, 2) in the direction of , and release the lock.

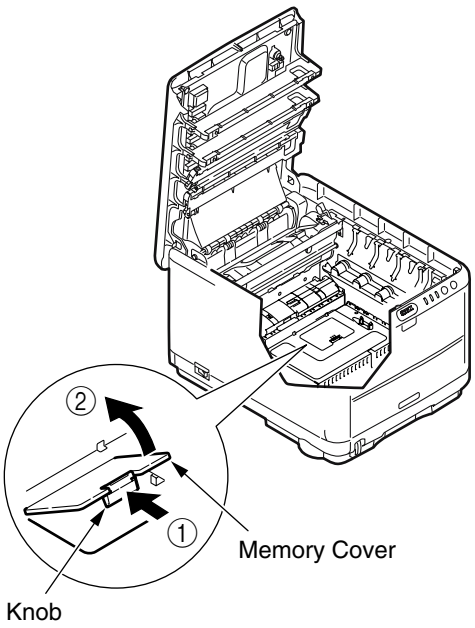


(2) Hold the lever (blue) of the belt unit and take out the belt unit gently.



Open the memory cover.

(1) Release the lock by pushing the knob of the memory cover in the direction of arrow and open the memory cover.



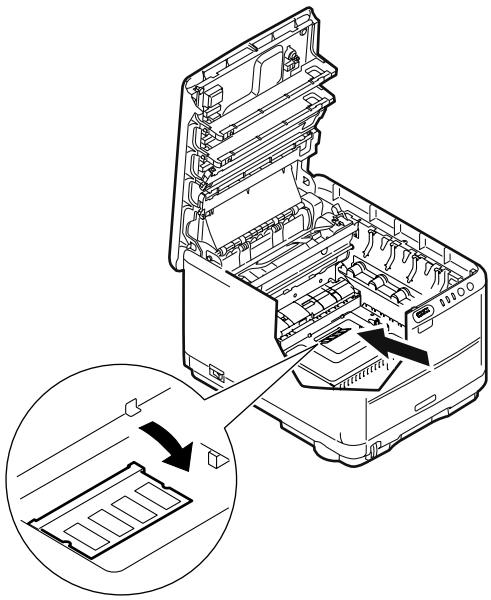
Install the memory.

Note! Do not touch electronic parts and connector terminal.

(1) Neutralize static electricity by letting the bag touch the metal part before taking out the memory from the bag.

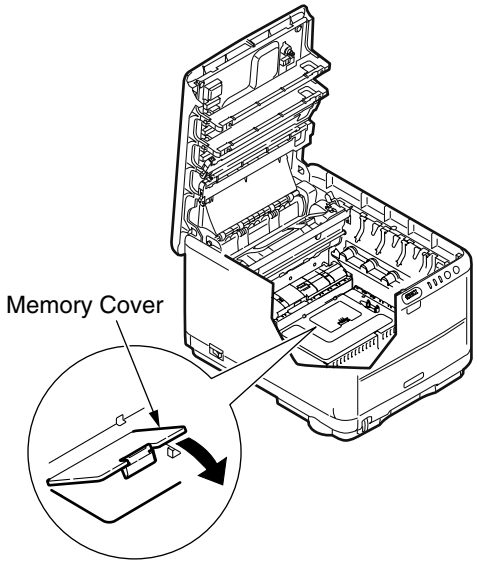
(2) Pay attention to the direction of the memory. There is a cut on the terminal part of the memory to fit it into the connector of the slot.

(3) Insert the memory in the empty slot and bring it down to the circuit board side.



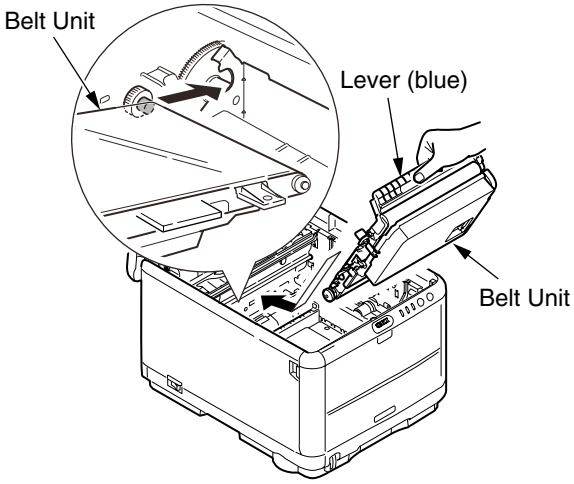
Close the memory cover.

(1) Close the memory cover. Confirm that it is firmly locked.

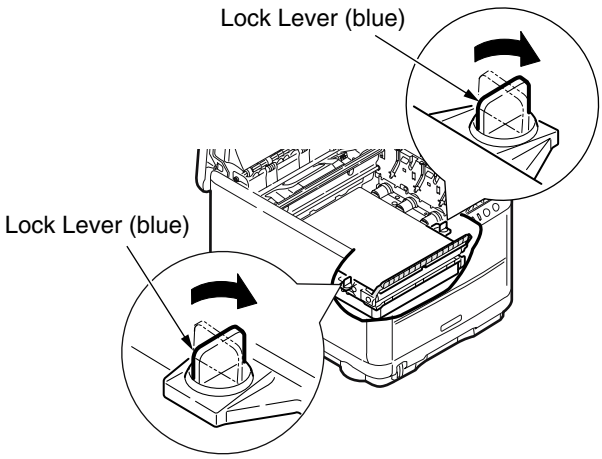


Install the belt unit.

(1) Hold the belt unit lever (blue) and install the belt unit.

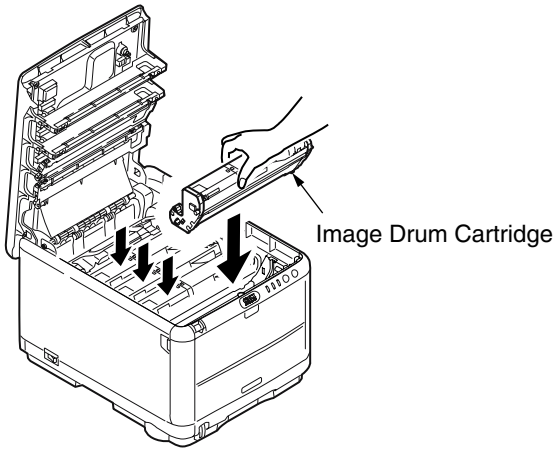


(2) Turn the lock lever(blue, 2) in the direction of and confirm that the belt unit is firmly fixed.



Install the image drum cartridge.

(1) Restore the 4 image drum cartridges to the original place.



Install the electric cord and printer cable to the printer and set the switch on.

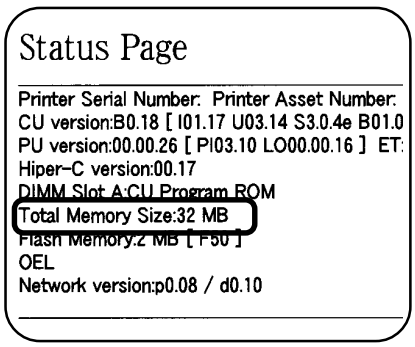
3.5.4 Confirm the Recognition of Option

In order to confirm that the items of option are correctly installed, conduct the menu map printing referring to “3.6 Status Page Print”.

(1) Confirm Recognition of Additional Memory

Confirm the contents of the status pages.

Confirm the total memory size displayed as “TOTAL MEMORY SIZE” in the header portion.


Status Page
Printer Serial Number: Printer Asset Number:
CU version:B0.18 [I01.17 U03.14 S3.0.4e B01.0
PU version:00.00.26 [PI03.10 LO00.00.16] ET:
Hiper-C version:00.17
DIMM Slot A:CU Program ROM
Total Memory Size:32 MB
Flash Memory:2 MB [F50]
OEL
Network version:p0.08 / d0.10

3.6 Status Page Print

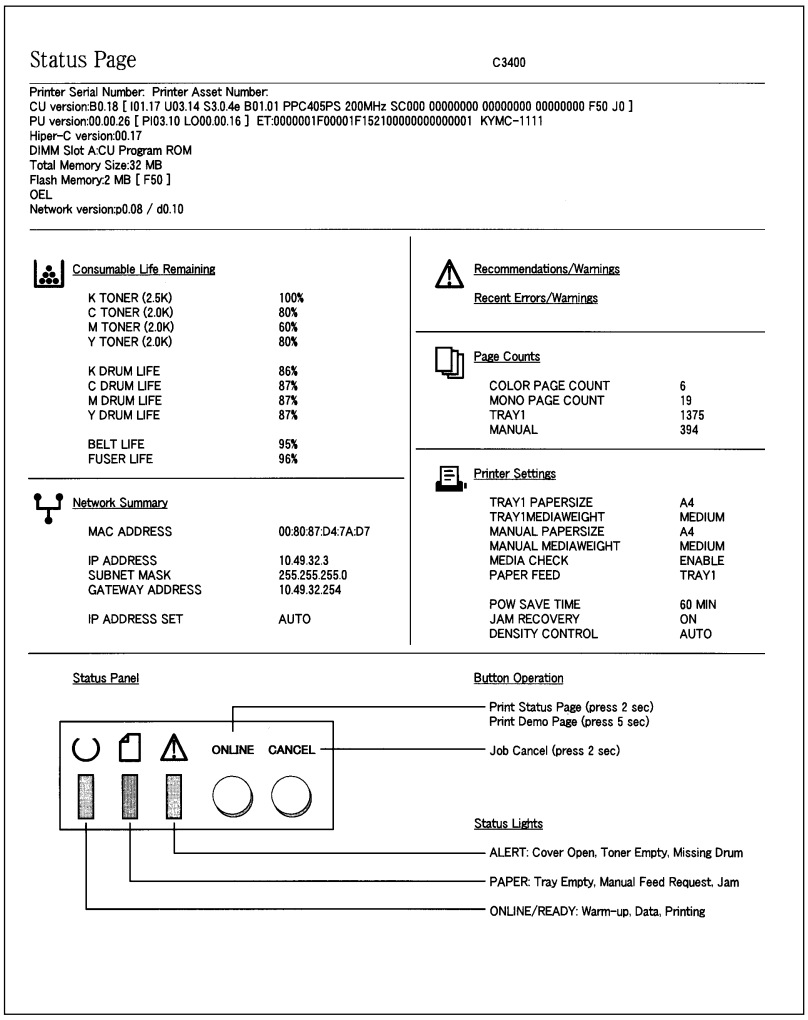
Make sure that the printer operates normally.

For C3400n/C3450n and C3300n

(1) Set sheets of A4 paper in the tray.

(2) Push the on-line switch for 2 seconds and release.

(Sample) In case of C3400n



Status Page C3400

Printer Serial Number: Printer Asset Number:
CU version:B0.18 [I01.17 U03.14 S3.0.4e B01.01 PPC405PS 200MHz SC000 00000000 00000000 00000000 F50 J0]
PU version:00.00.26 [PI03.10 LO00.00.16] ET:0000001F00001F152100000000000001 KYMC-1111
Hiper-C version:00.17
DIMM Slot A:CU Program ROM
Total Memory Size:32 MB
Flash Memory:2 MB [F50]
OEL
Network version:p0.08 / d0.10

Consumable Life Remaining

K TONER (2.5K)	100%
C TONER (2.0K)	80%
M TONER (2.0K)	60%
Y TONER (2.0K)	80%
K DRUM LIFE	86%
C DRUM LIFE	87%
M DRUM LIFE	87%
Y DRUM LIFE	87%
BELT LIFE	95%
FUSER LIFE	96%

Network Summary

MAC ADDRESS	00:80:87:D4:7A:D7
IP ADDRESS	10.49.32.3
SUBNET MASK	255.255.255.0
GATEWAY ADDRESS	10.49.32.254
IP ADDRESS SET	AUTO

Recommendations/Warnings

Recent Errors/Warnings

Page Counts

COLOR PAGE COUNT	6
MONO PAGE COUNT	19
TRAY1	1375
MANUAL	394

Printer Settings

TRAY1 PAPERSIZE	A4
TRAY1MEDIAWEIGHT	MEDIUM
MANUAL PAPERSIZE	A4
MANUAL MEDIAWEIGHT	MEDIUM
MEDIA CHECK	ENABLE
PAPER FEED	TRAY1
POW SAVE TIME	60 MIN
JAM RECOVERY	ON
DENSITY CONTROL	AUTO

Status Panel

Button Operation

Print Status Page (press 2 sec)
Print Demo Page (press 5 sec)
Job Cancel (press 2 sec)

Status Lights

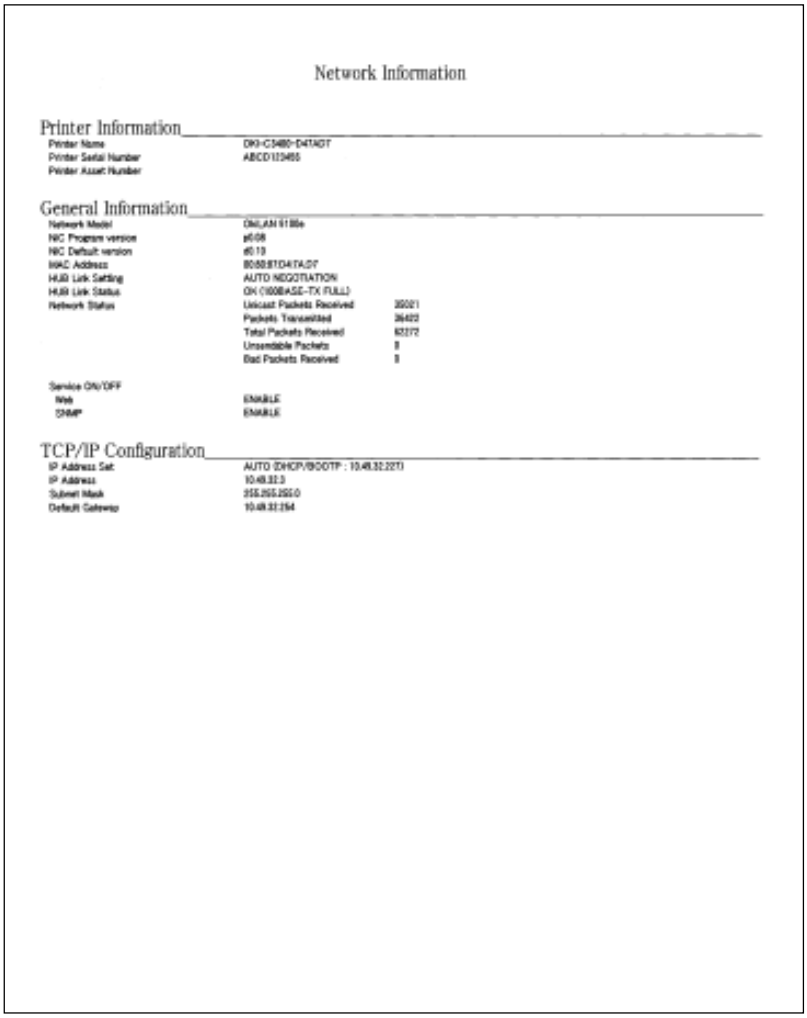
ALERT: Cover Open, Toner Empty, Missing Drum
PAPER: Tray Empty, Manual Feed Request, Jam
ONLINE/READY: Warm-up, Data, Printing

3.7 Network Information Print

Confirm the network information print.

(1) Push the TEST switch beside the network connector on the back of the printer for 5 seconds and release. Then the network information will be printed.

(Sample) In case of C3400n

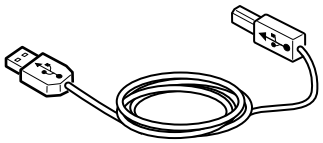


3.8 Connection Procedures

<USB Connection>

Prepare a USB Cable.

Note! • The cable of the printer is not attached. Users should buy seperately.
• Obtain the cable of USB specification by yourself.
• Use the USB cable of Hi-Speed specification in case the connection is to be made using “HI-Speed” mode of USB2.0.



Switch off the power of the printer and computer.

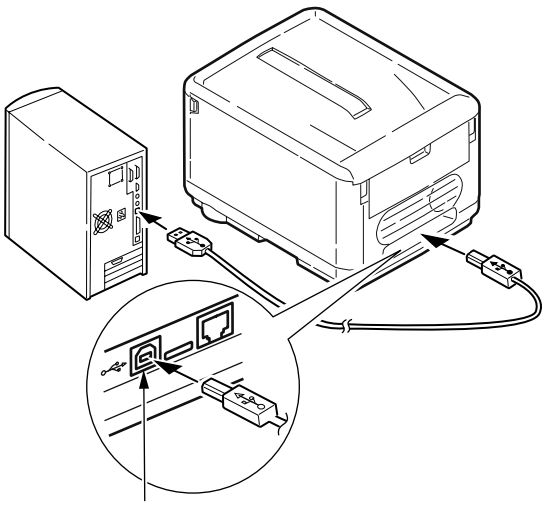
Memo Although the USB cable can be connected or removed with the switch of the computer and printer on, switch off the power of the printer at this step in order to ensure installation of the printer driver and USB driver later.

Connect the printer with the computer.

(1) Plug the USB cable into the USB interface connector of the printer.

(2) Plug the USB cable into the USB interface connector of the computer.

Note! Be careful not to insert the USB cable into the network interface connector.
Or else it may cause troubles.



UBS Interface Connector

<LAN Cable Connection>

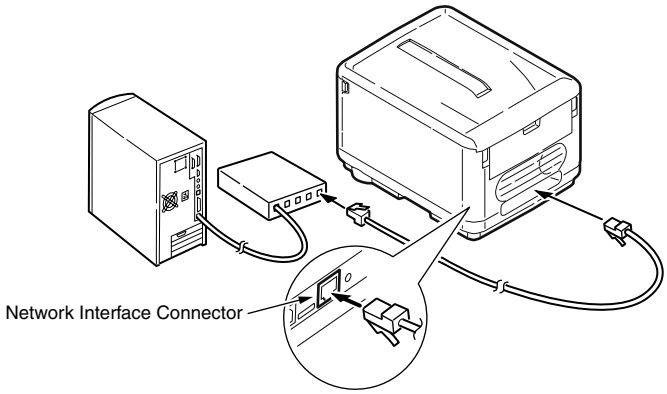
Prepare the LAN cable.

Switch off the power of the printer and computer.

Connect the computer and printer.

(1) Plug the Ethernet cable into the network interface connector of the printer.

(2) Plug the Ethernet cable into the hub.



3.9 Checking of User Paper

Set the medium the user uses, set up media type/weight, conduct menu map/demo print and confirm that the toner does not peel off.

Types	Weight	Setting values of the printer menu setting		Setting *2 for [Media weight] of the printer driver
		Media weight	Media type *1	
Regular paper*3	55-64kg (64-74g/m^2)	Light	Light	Light
	65-89kg (75-104g/m^2)	Madium		Madium
	90-103kg (105-120g/m^2)	Heavy		Heavy
	104-172kg (121-200g/m^2)	Ultra Heavy		Ultra Heavy
Postcard*4	-	-	-	-
Envelope*4	-	-	-	-
Label paper	Less than 0.1-0.17mm	Heavy	Label paper	Label paper 1
	0.17-0.2mm	Ultra Heavy		Label paper 2

*1 : The set-up of the media type at the time of shipment from the factory is “Light”.

*2 : Thickness and type of paper can be set up by the printer driver. When they are set up by the printer driver, the printer driver set-up has priority. When “Automatic Selection” is selected by “Paper Feed Method” of the printer driver or when “Printer Set-up” is selected by “Paper Thickness”, printing is made by the set-up of the printer menu setting.

*3 : Thickness of paper for both side printing is 65~90kg in weight (75~105g/m2).

*4 : Set-up of media weight and media type is not necessary for postcards and envelopes.

Memo When “Heavy” and “Ultra Heavy” of Media Weight and “Label Paper” of Media Type are set up, the printing speed becomes slow.

4. REPLACEMENT OF PARTS

This section explains the field replacement procedures for parts, assemblies and component units. While those replacement procedures refer to the disassembling of parts, follow the same procedures inversely for reassembling them.
The part numbers (1, 2, etc.) employed in this manual are different from those assigned in the corresponding configuration diagrams of Disassembly for Maintenance (43163501TL) and RSPL (43163501TR).

4.1 Precautions on the replacement of parts

(1) Prior to replacing a part, be sure to disconnect the AC cord and interface cable.

(a) To disconnect the AC cord, always follow the procedure described below:

① Turn off ("O") the power switch of the printer.
② Pull out the AC plug of the AC cord from the AC power outlet.
③ Pull out the earth wire from the earth terminal of the AC power outlet.
④ Unplug the AC cord and interface cable from the printer.

⚠Warning	Risk of Electric Shock	

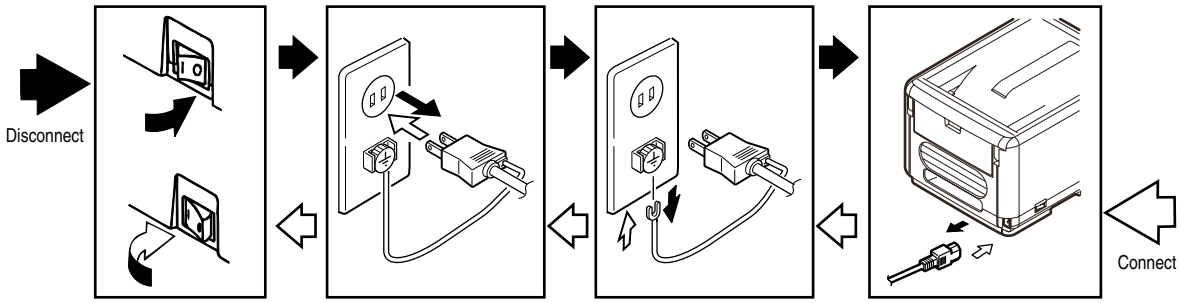
There is a risk of electric shock during replacement of the low voltage power supply.

Use insulating gloves or avoid direct contact with any conducting part of the power supply, and caution should be exercised during replacement.

The capacitor may take one minute to complete discharge after the AC cord is unplugged. Also, there is a possibility that the capacitor doesn't discharge because of a breakage of the PCB, etc., so remember the possibility of electric shock to avoid electric shock.

(b) To reconnect the printer, always follow the procedure described below:

① Plug the AC cord and interface cable into the printer.
② Insert the earth wire into the earth terminal of the AC power outlet.
③ Insert the AC plug into the AC power outlet.
④ Turn on ("|") the power switch of the printer.



(2) Do not disassemble the printer as long as it is operating normally.

(3) Limit disassembly to a necessary minimum. Do not remove other parts than those specified in the part replacement procedure.

(4) Use the designated maintenance tools.

(5) Conduct disassembly by following the specified sequential order. Failure to observe this order could damage the parts.

(6) Screws, collars and other small parts should be attached provisionally to their original positions, since they are liable to be lost.

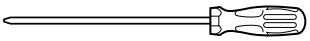
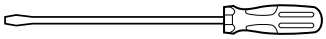
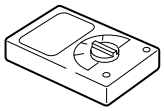
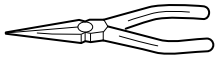
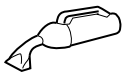
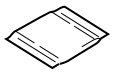
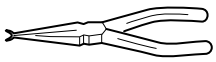
(7) When handling a microprocessor, ROM, RAM and other ICs and circuit boards, do not wear gloves that tend to generate static electricity.

(8) Printed-circuit boards should not be placed directly on an equipment or floor.

[Maintenance Tools]

Clawle 4-1-1 indicates the tools necessary to replace printed-circuit boards and component units.

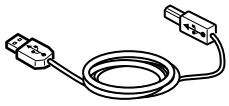
Clawle 4-1-1 Maintenance Tools

No.	Service Tools		Q' ty	Place of use	Remarks
1		No. 2-200 Philips screwdriver, Magnetized	1	3~5 mm screws	
2		No. 3-100 screwdriver	1		
3		No. 5-200 screwdriver	1		
4		Digital multimeter	1		
5		Pliers	1		
6		Handy cleaner	1		Reter to the following note.
7		LED Head cleaner P/N 4PB4083-2248P001	1	Cleans LED head	
8		E-ring pliers	1		

Note! Use a vacuum cleaner dealing with toner. Using a common vacuum cleaner may cause fire.

Clawle 4-1-2 indicates the tools necessary for using maintenance utilities.

Table 4-1-2 Maintenance Tools

No.	Service Tools		Q' ty	Place of use	Remarks
1		Laptop computer [Must have maintenance utilities installed]	1		
2		USB cable	1		

4.2 Part replacement methods

This subsection explains the replacement methods for the parts and assemblies illustrated in the disassembly system diagram below.

4.2.1 Left side cover

(1) Open the top cover.

(2) Open the front cover.

(3) Remove a screw (silver) ① four claws A and a claw B to detach the left side cover ②.

(Tool No. 1)

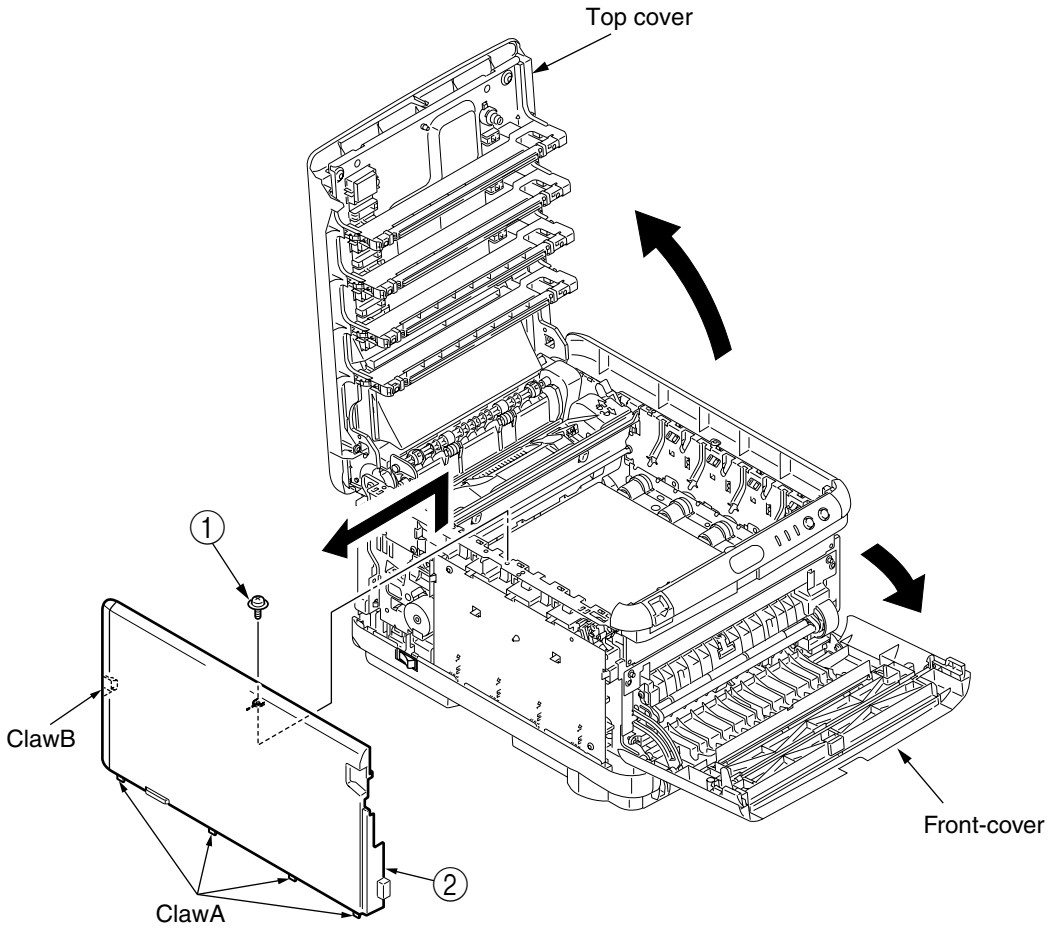


Figure 4-2-1 Left side cover

4.2.2 Right side cover

(1) Open the top cover.

(2) Open the front cover.

(3) Take out a screw (silver) ① four claws A and a claw B to detach the right side cover ②.
(Tool No.1)

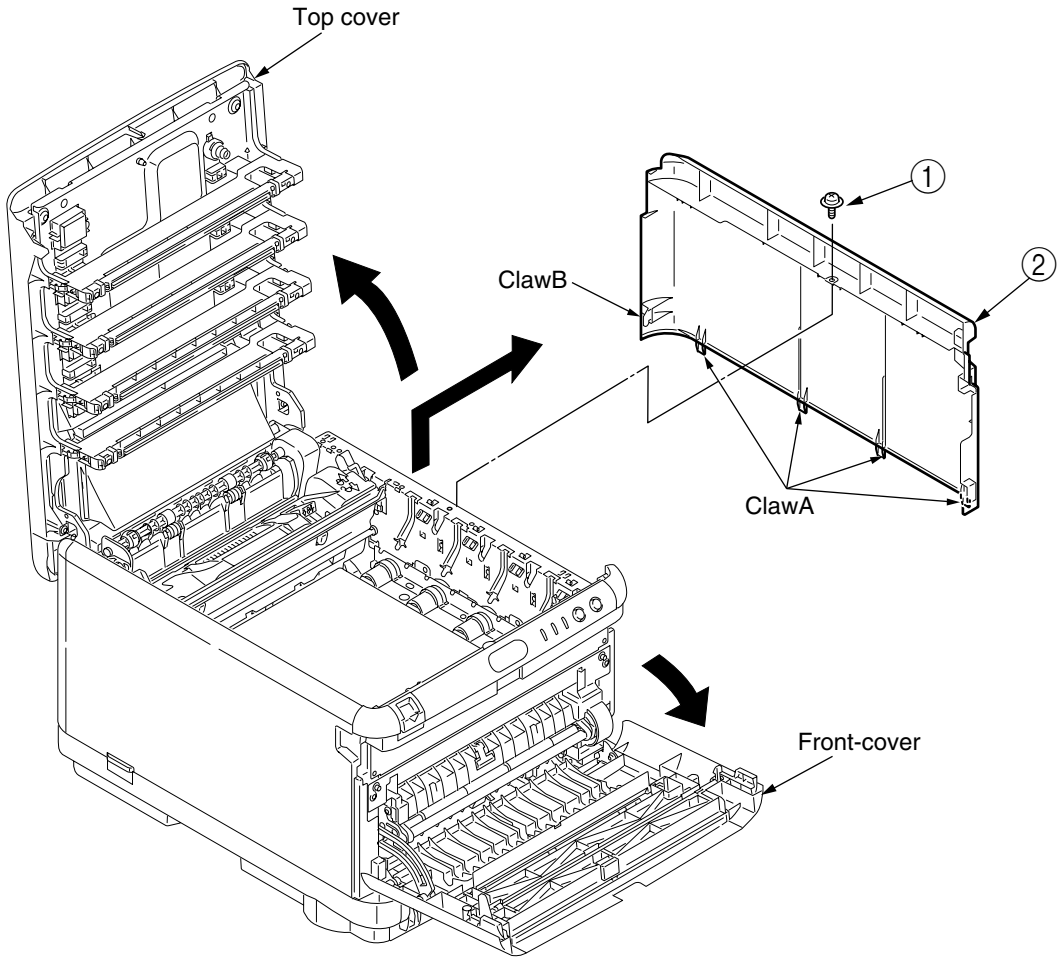


Figure 4-2-2 Right side cover

4.2.3 Rear cover (Top/Bottom)

(1) Remove the left side cover. (See Subsection 4.2.1)

(2) Remove the right side cover. (See Subsection 4.2.2)

(3) Take out two screws (silver) ①. (Tool No.1)

(4) As shown in the drawing, put the flat-blade screwdriver (Tool No.3) into a hole A to remove two claws A.

(5) Remove tow claws B by hand and then, remove the rear cover assembly ②.

(6) Lift the rear cover bottom ③ upward to detach it.

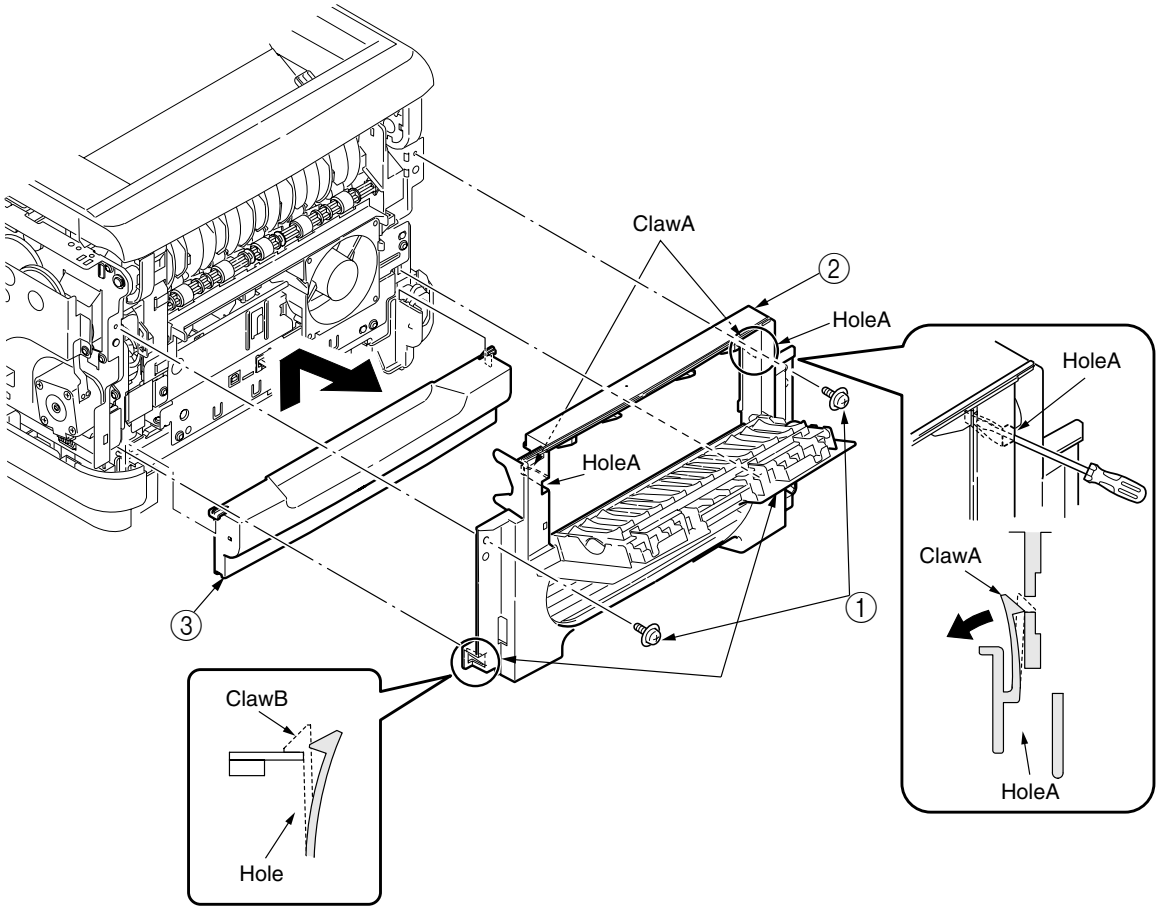


Figure 4-2-3 Rear cover

4.2.4 Front cover

(1) Remove the Shaft-Cover ① and the stay ② and then, remove the Shaft-Cover ③, and the Front-Cover ④.

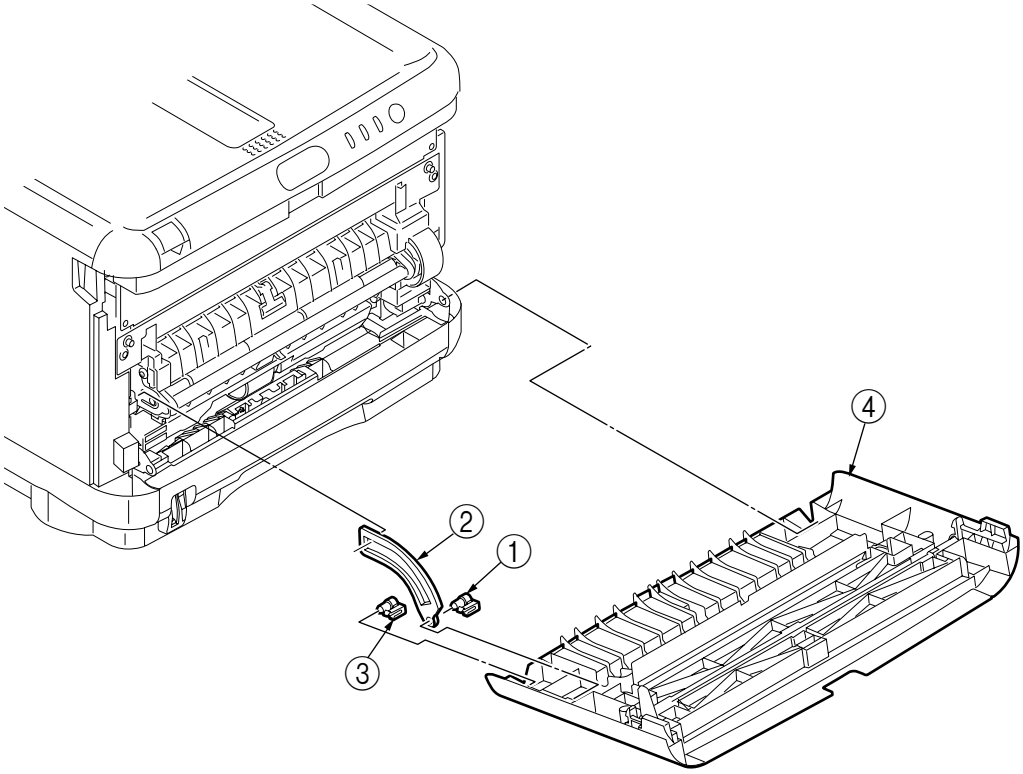


Figure 4-2-4 Front cover

4.2.5 Top cover assembly

(1) Open the top cover.

(2) Remove the left side cover. (See Subsection 4.2.1)

(3) Remove the right side cover. (See Subsection 4.2.2)

(4) Detach the rear cover. (See Subsection 4.2.3)

(5) Remove the plate heat. (See Subsection 4.2.18)

(6) Remove the plate shield front. (See Subsection 4.2.16)

(7) Take out a screw (silver) ①.

(8) Remove the BLA-PCB (main board) (See Subsection 4.2.23), and then, remove the head cable (FFC) and the RFID cable.

(9) Remove two E-type retaining rings ② two sprint torsions ③ and the top cover assembly ④.

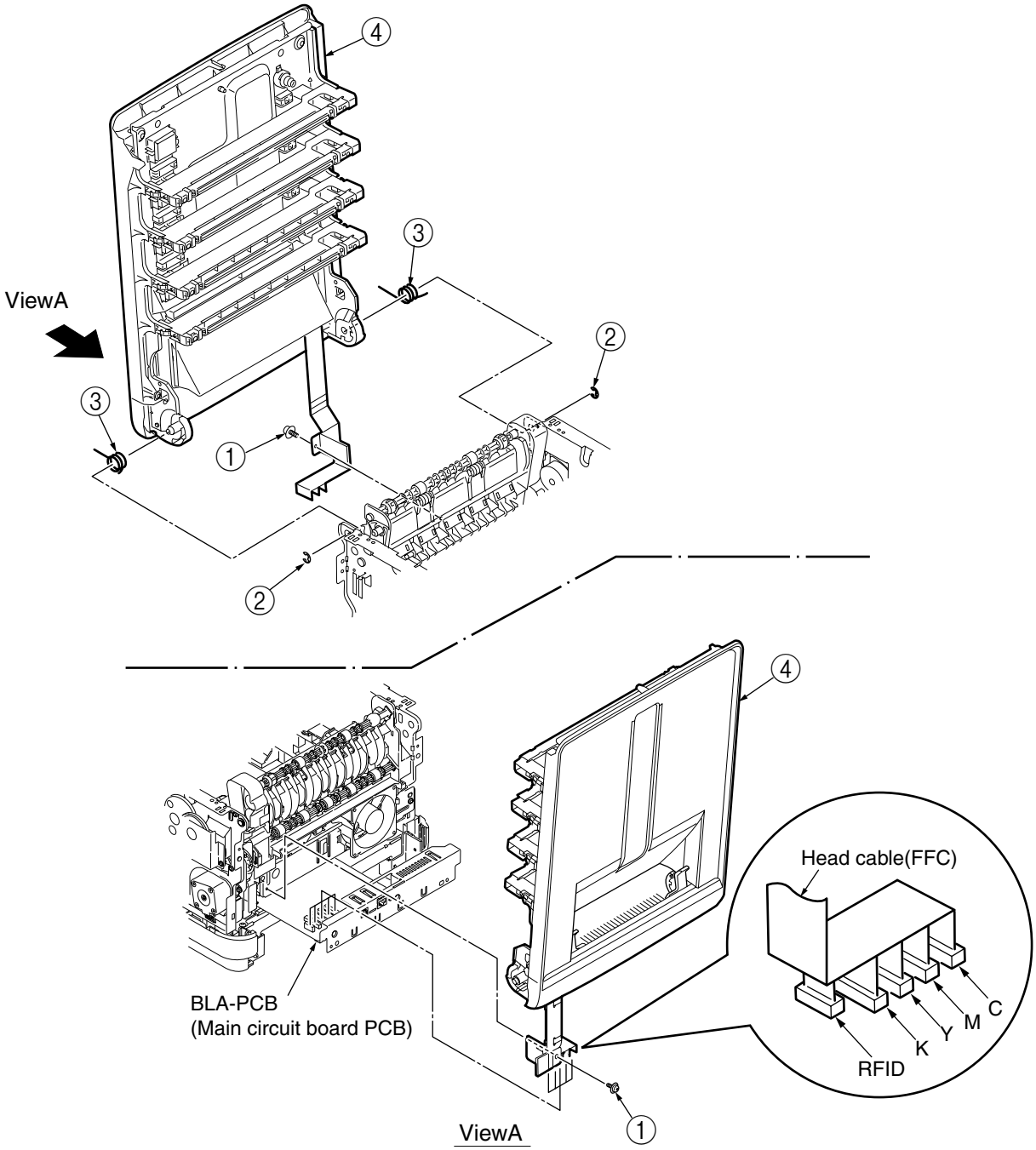


Figure 4-2-5 Top cover assembly

4.2.6 Top cover

(1) Remove the top cover assembly. (See Subsection 4.2.5)

(2) Take out nine screws (black) ① to remove the top cover ②.

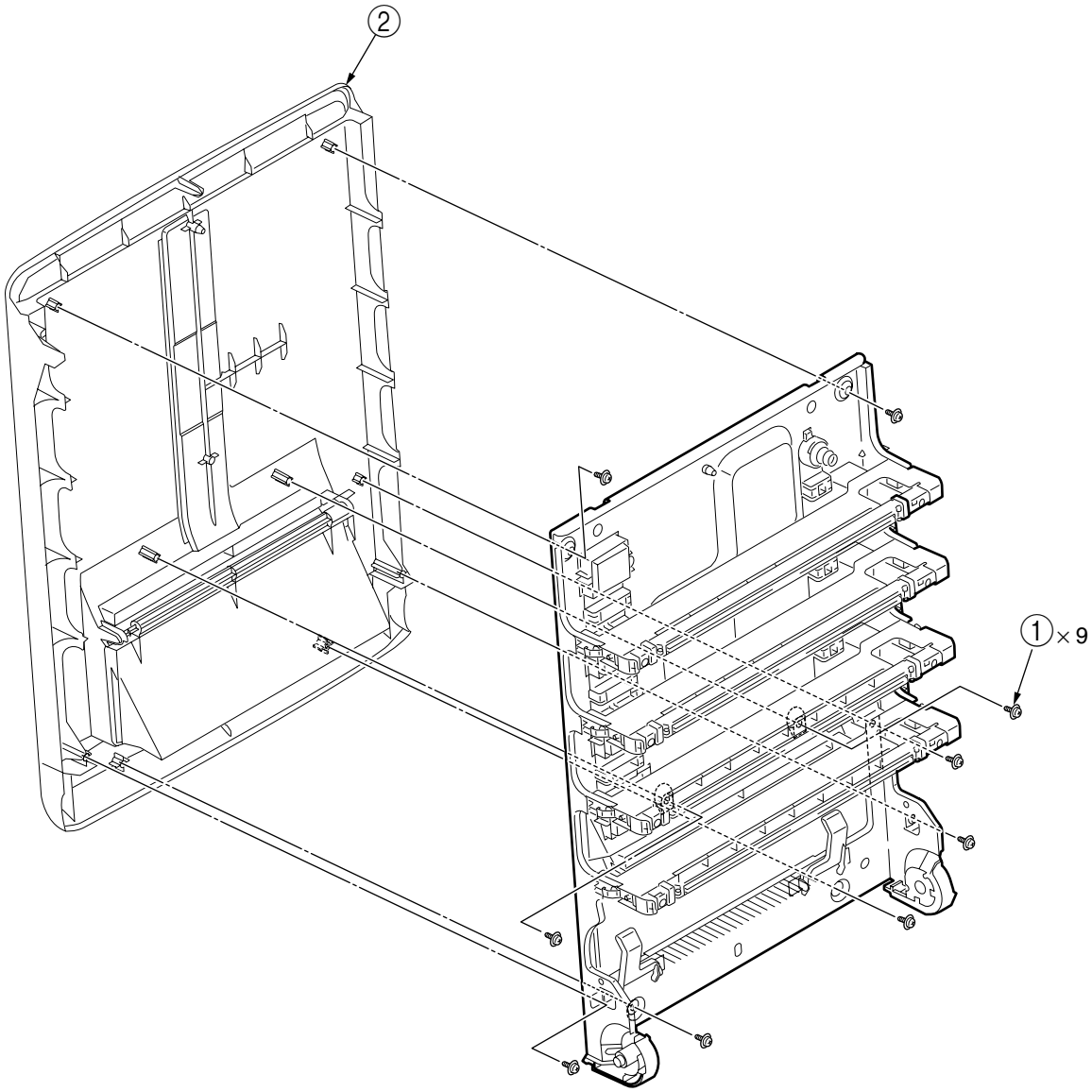


Figure 4-2-6 Top cover

4.2.7 LED assembly/ LED assembly spring

(1) Open the top cover.

(2) After removing the head cable (FFC), apply force in the direction of the arrow 'X' as shown in Figure (2). Remove a hook A first and then a hook B to remove the LED assembly ①.

(3) Remove the LED assembly SU spring ②.

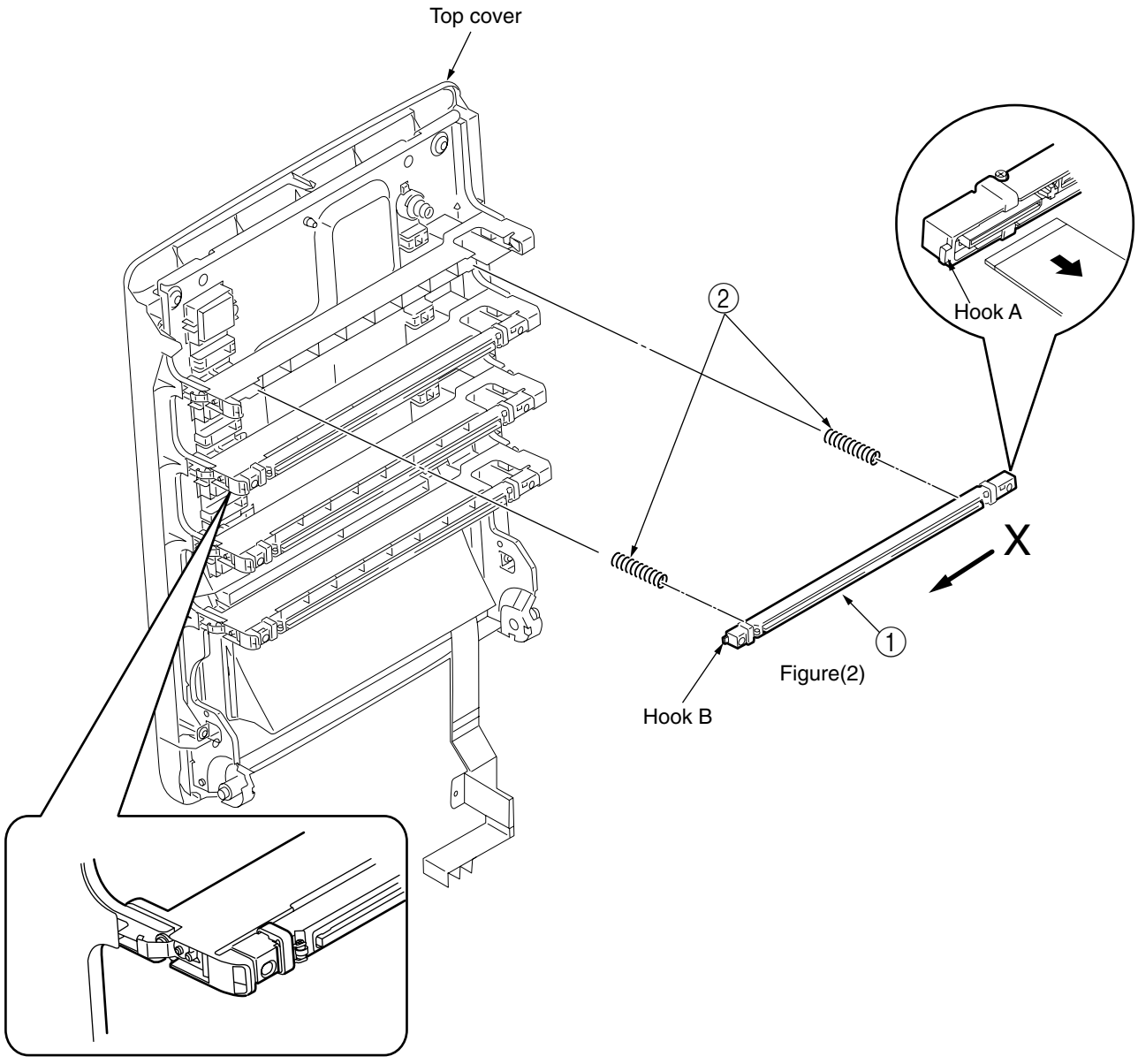


Figure 4-2-7 LED assembly/ LED assembly spring

4.2.8 RFID assembly

(1) Remove the top cover assembly. (See Subsection 4.2.6)

(2) Remove the top cover. (See Subsection 4.2.7)

(3) Remove two screws (silver) ① and all connectors to detach the LUM board (RFID reader writer) ②.

(4) Detach six claws A and two claws B engaging with the plate-inner ③ to remove RFID assembly ④.

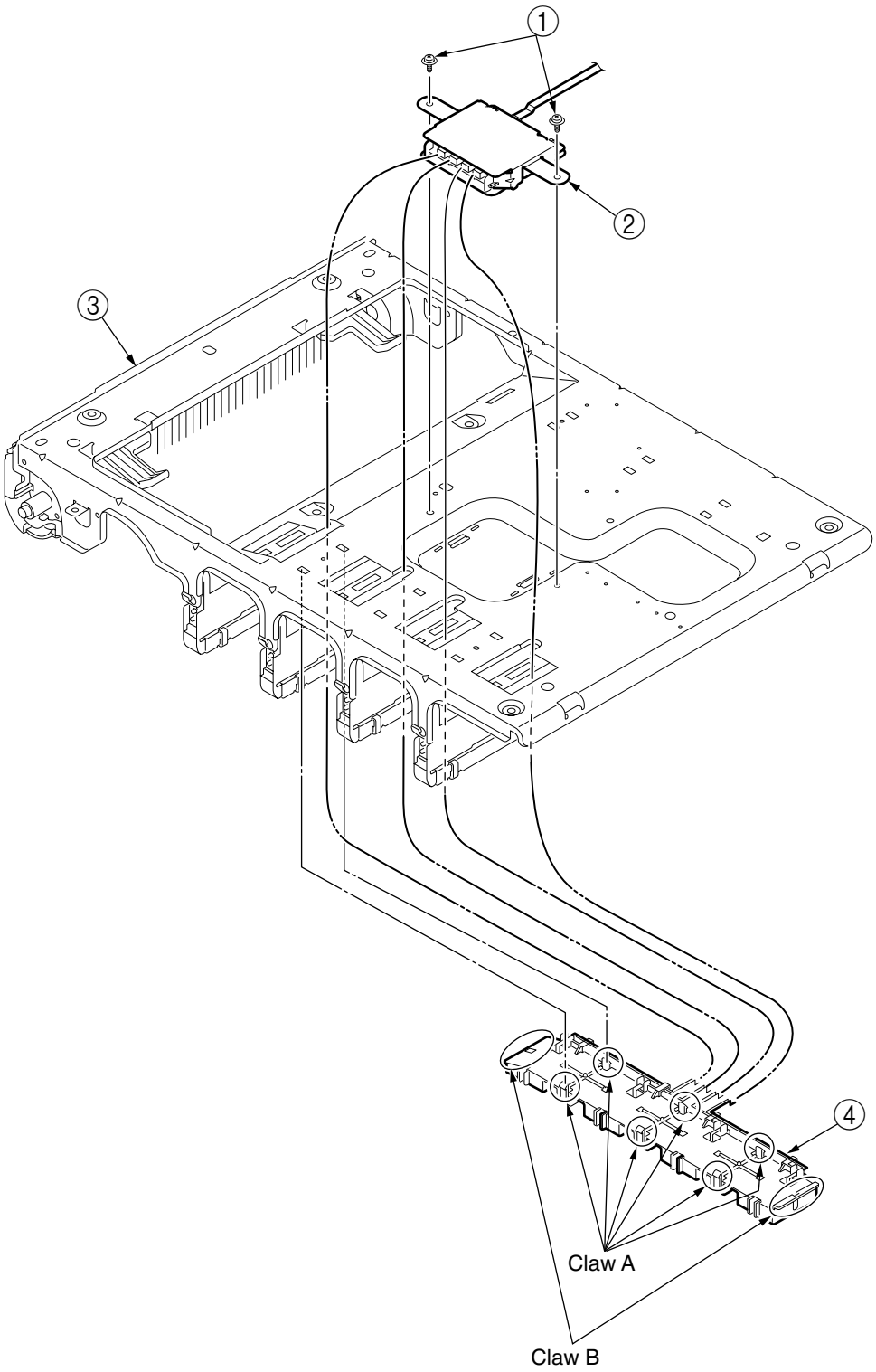


Figure 4-2-8 RFID assembly

4.2.9 Control pane assembly

(1) Open the top cover.

(2) Open the front cover.

(3) Remove the right side cover (See Subsection 4.2.2)

(4) Remove the plate shield front and cable (See Subsection 4.2.16)

(5) Detach FFC which connects the control panel assembly with the control panel PCB.

(6) Take out four screws (silver) ① to remove the control panel assembly ②. (Tool No.1)

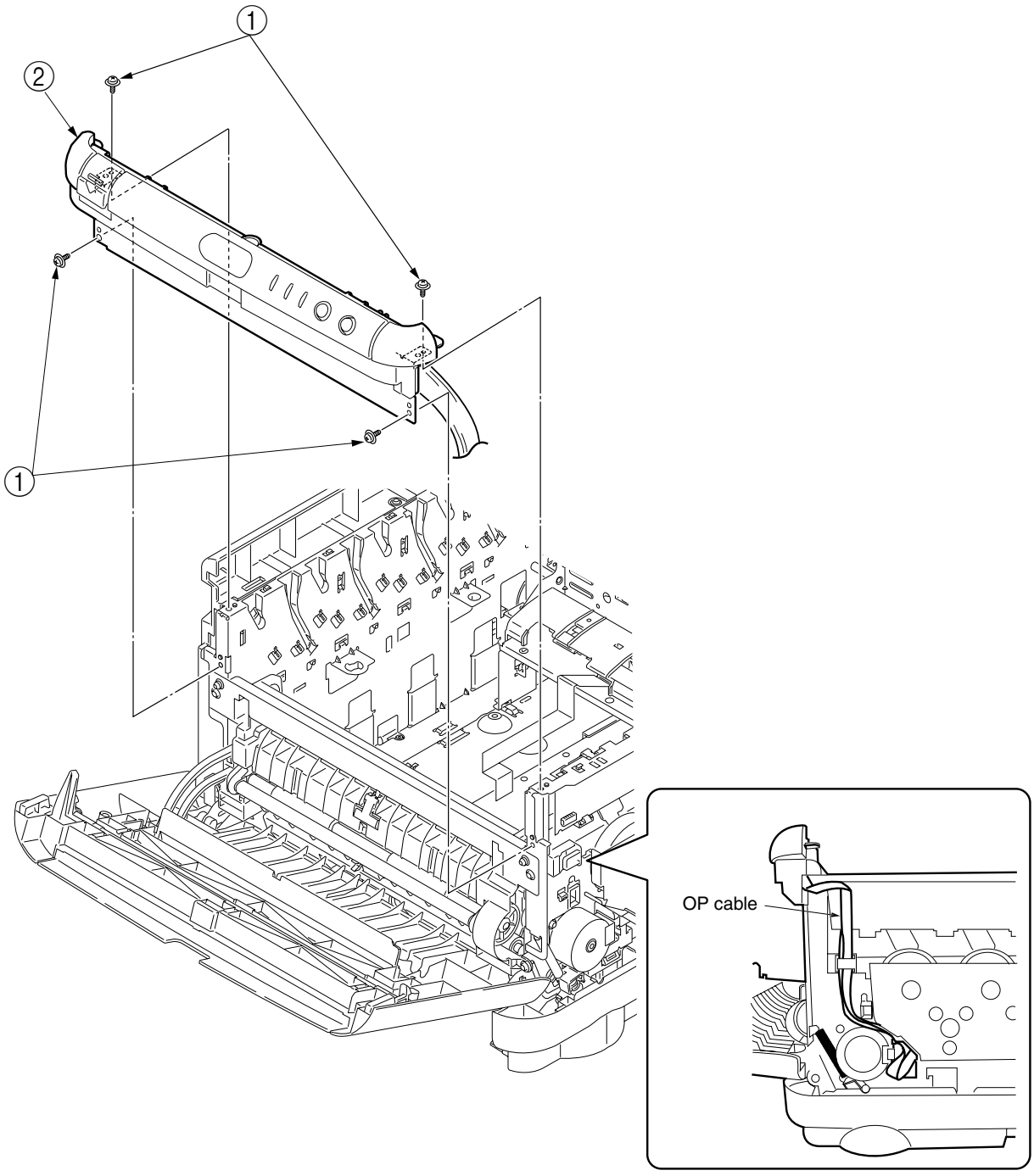


Figure 4-2-9 Control pane assembly

4.2.10 WHI board

(1) Remove the control panel assembly (See Subsection 4.2.9)

(2) Take out a claw A to remove the frame OP ①.

(3) Remove a claw B and the button lock ② to detach the lever lock ③.

(4) Remove a spring ④.

(5) Remove four claws C and the cover assembly OP ⑤. to remove the WHI board (operation panel) ⑥.

(6) Remove a spring ⑦.

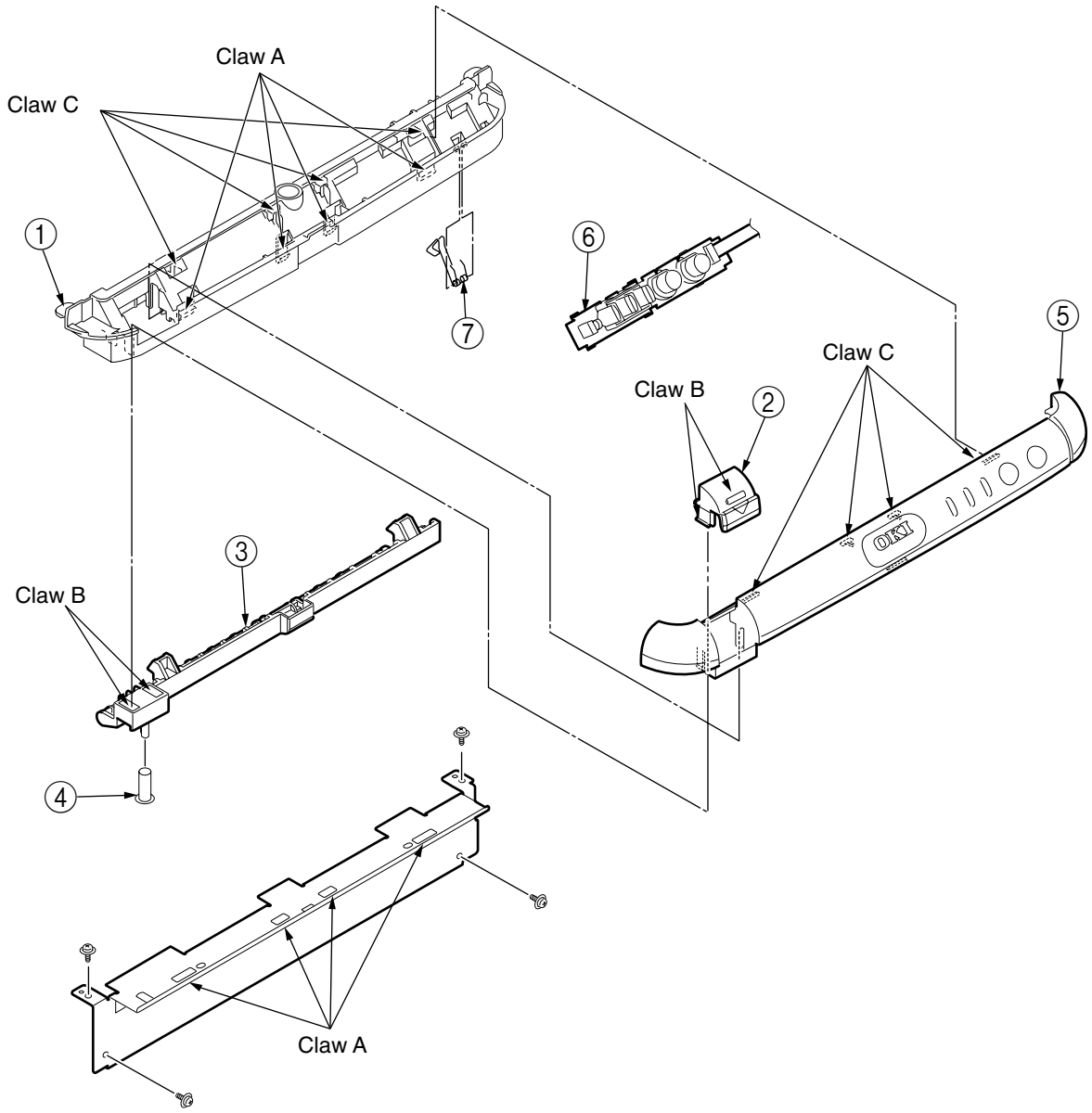


Figure 4-2-10 WHI board

4.2.11 Feeder unit

(1) Open the top cover.

(2) Open the front cover. (See Subsection 4.2.4)

(3) Remove the Lever_Lock_Assembly ①.

(4) Remove the left side cover. (See Subsection 4.2.1)

(5) Remove the right side cover. (See subsection 4.2.2)

(6) Detach the plate shield front. (See Subsection 4.2.16)

(7) Remove a connector ③ connecting to the feeder unit ② from the BLA board (main board).

(8) Take out four screws (silver) ④ to remove the feeder unit ②.

(9) Remove claws to remove the cover sensor ⑤.

(10) Remove the MIP board (front sensor board) ⑥.

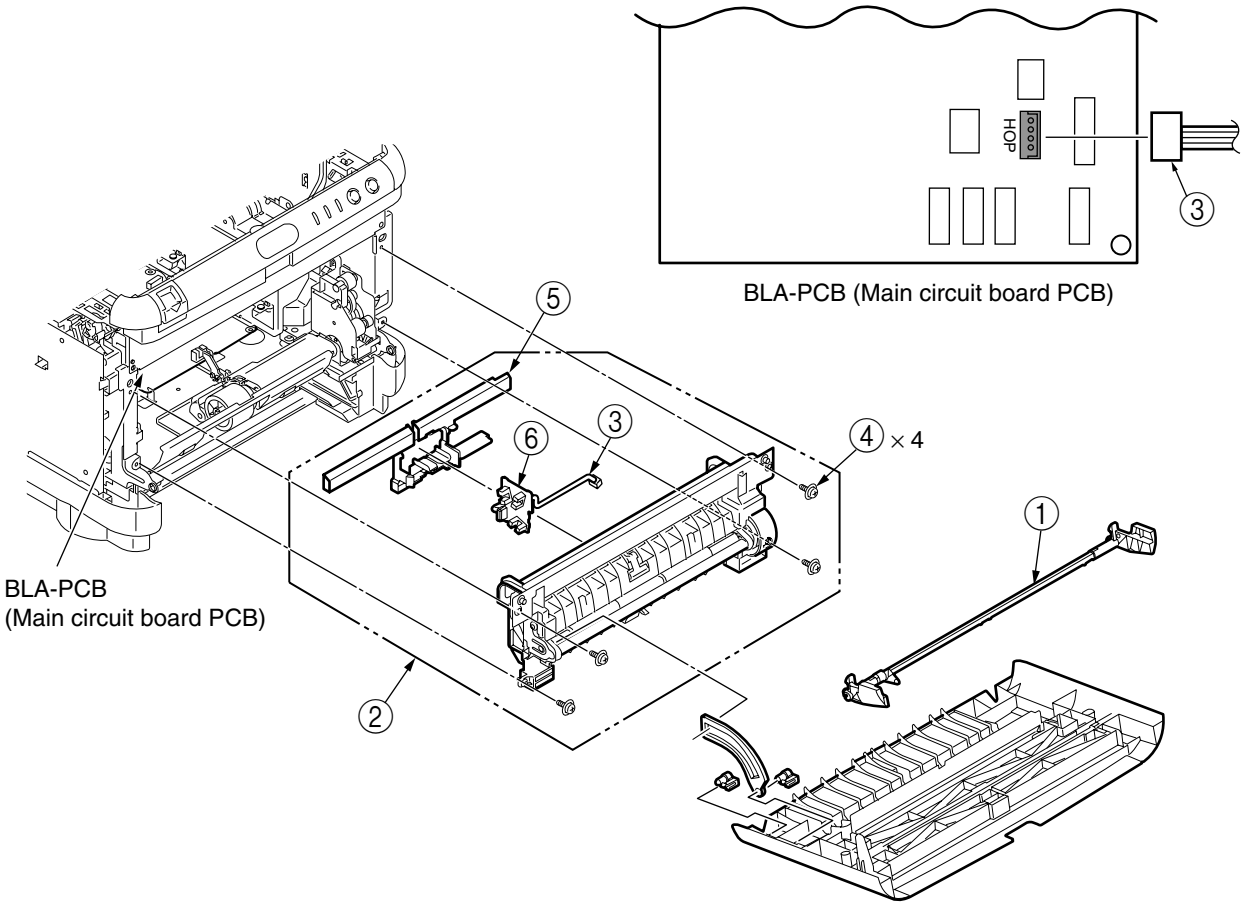


Figure 4-2-11 Feeder unit

4.2.12 Manual feeder unit

(1) Open the top cover.

(2) Open the manual feeder ① .

(3) Hold both ends of the manual feeder ① and pull it in the direction of the arrow to remove it.

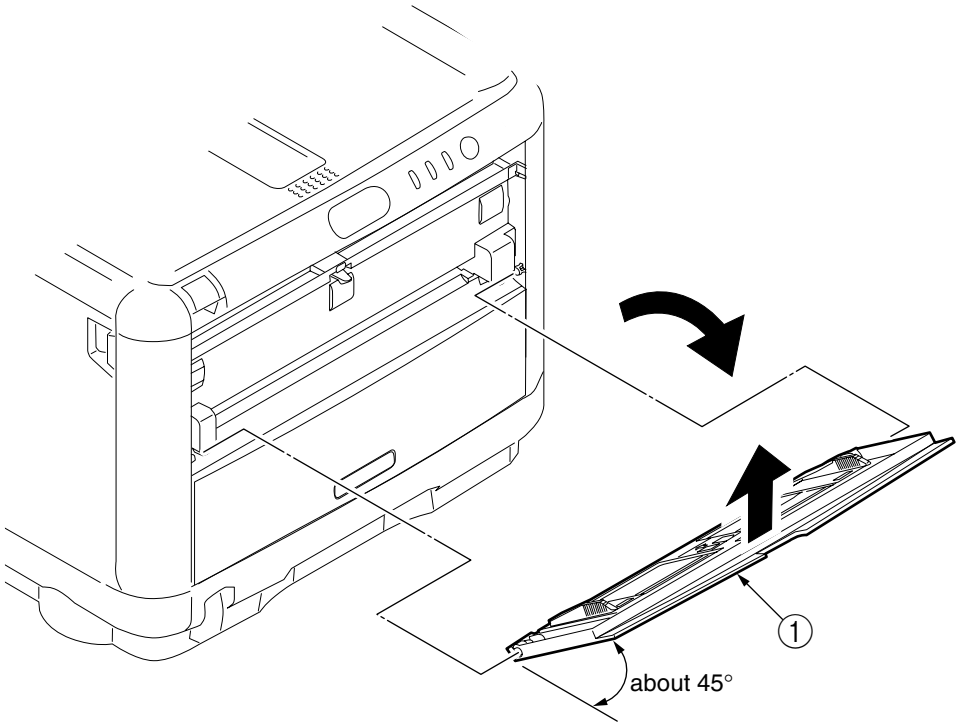


Figure 4-2-12 Manual feeder unit

4.2.13 Face up tray

(1) Remove the left side cover. (See Subsection 4.2.1)

(2) Remove the right side cover. (See Subsection 4.2.2)

(3) Remove the rear cover. (See Subsection 4.2.3)

(4) Remove the supporting points of the face up tray ① with a flat blade screwdriver. (Tool No.3)

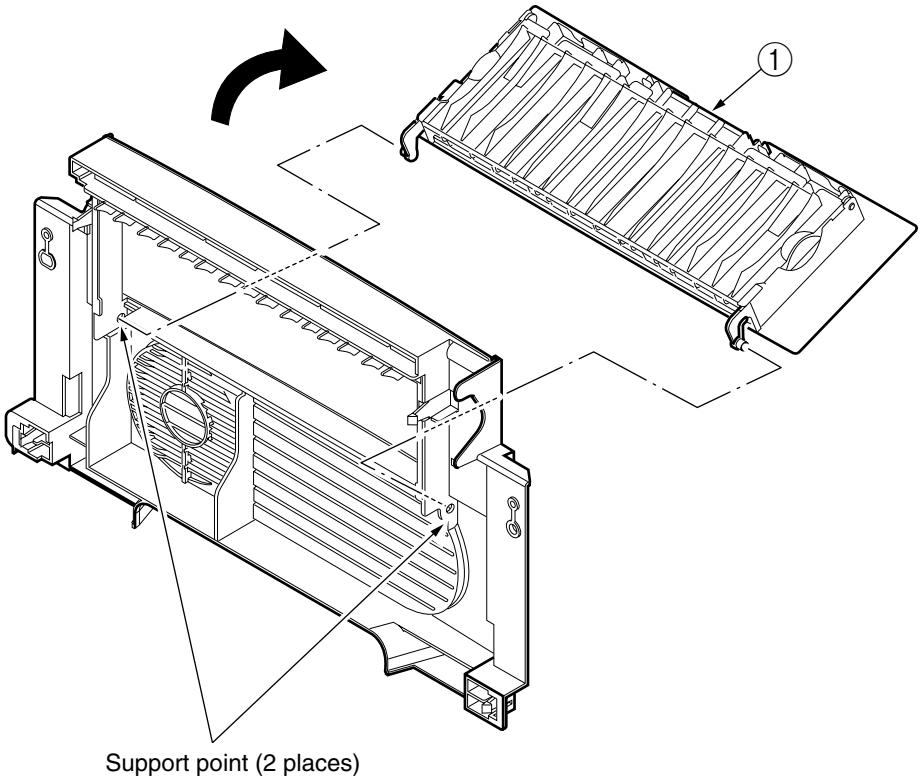


Figure 4-2-13 Face up tray

4.2.14 Guide eject assembly

(1) Remove the left side cover. (See Subsection 4.2.1)

(2) Remove the right side cover. (See Subsection 4.2.2)

(3) Remove the rear cover. (See Subsection 4.2.3)

(4) Remove the top cover assembly. (See Subsection 4.2.5)

(5) Remove the color registration assembly. (See Subsection 4.2.17)

(6) Detach two latches at the lower part of the guide eject assembly ① to remove the guide eject assembly ①.

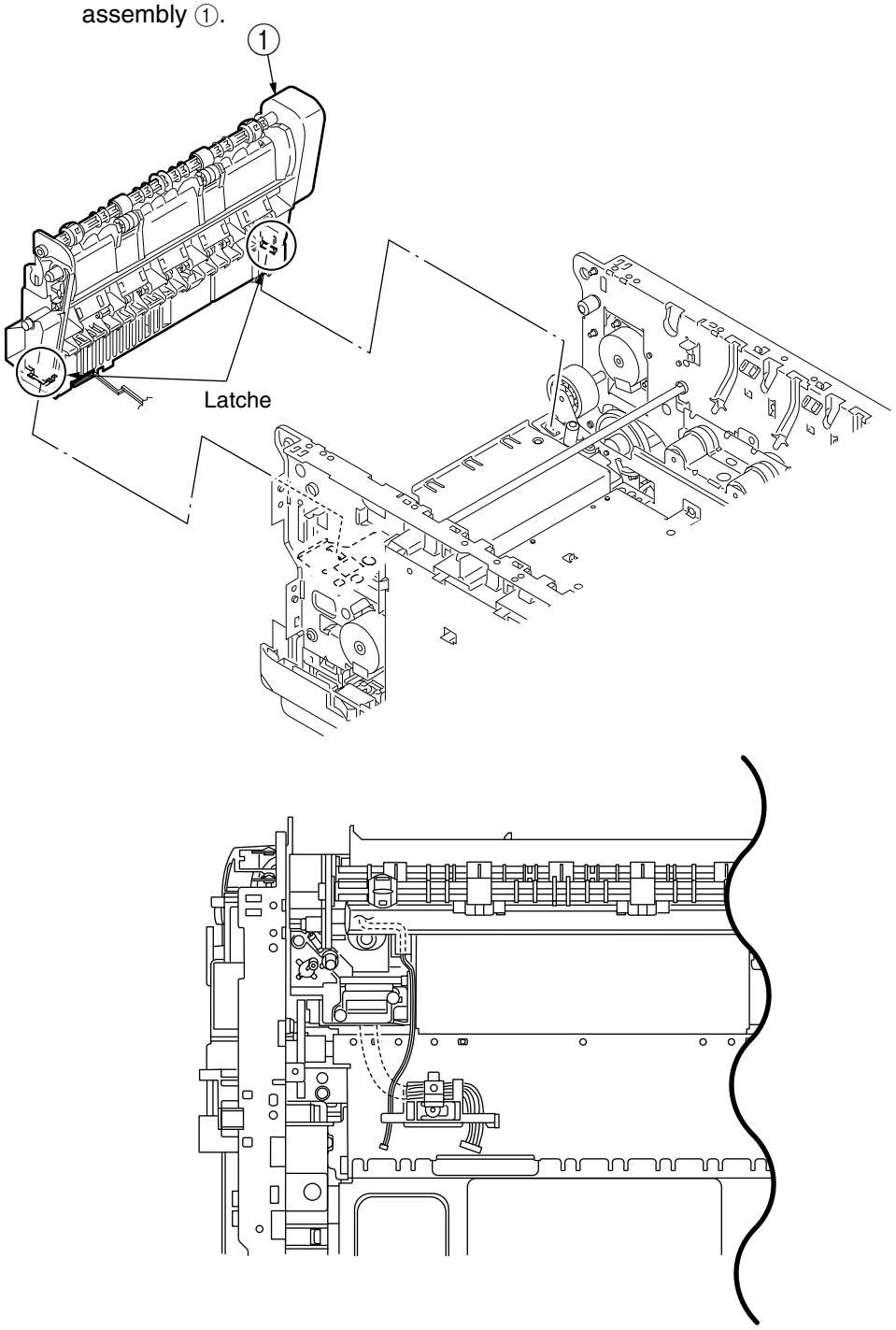


Figure 4-2-14 Guide eject assembly

4.2.15 Eject roller

(1) Remover the guide eject assembly ①. (See Subsection 4.2.14)

(2) Remove two claws A to divide them into the guide eject lower ② and the guide eject upper ③.

(3) Detach a claw B, three gear idle ejects ④. Remove the shaft assembly eject (FD) ⑤ and the shaft assembly eject (FU) ⑥.

(4) Remove the eject sensor ⑦, and the lever eject sensor ⑧ from the guide eject lower ②.

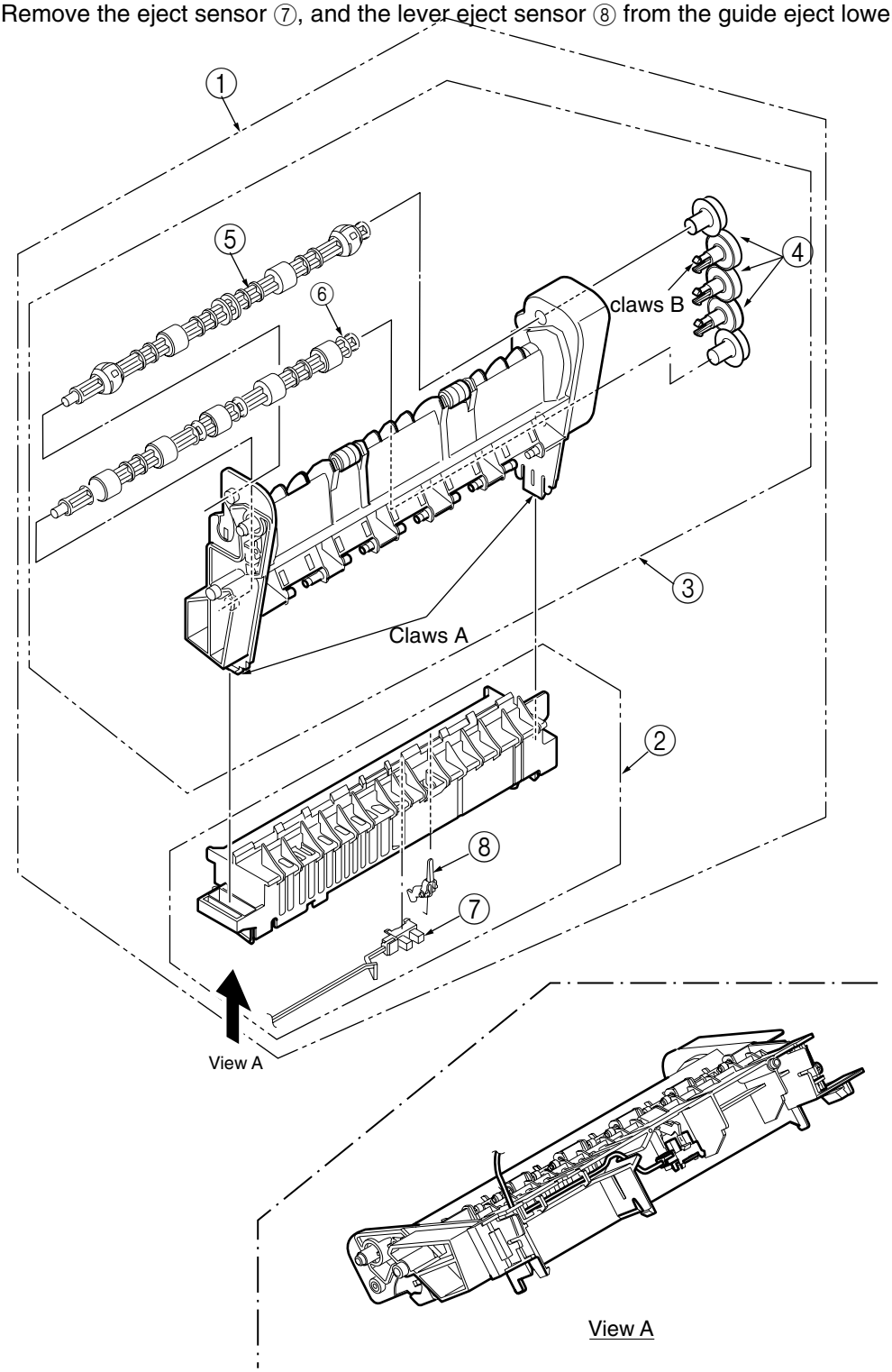


Figure 4-2-15 Eject roller

4.2.16 Plate shield front

(1) Remove two screws (silver) and remove the plate shield front ②.

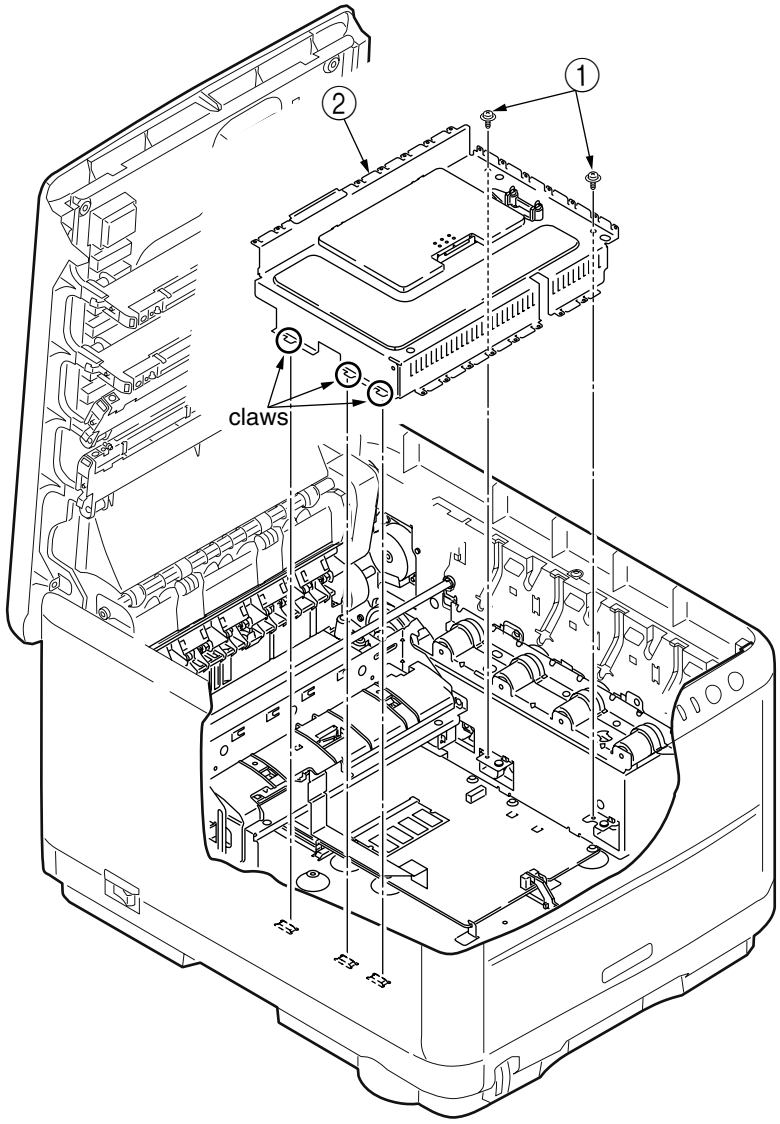


Figure 4-2-16 Plate shield front

4.2.17 Color registration assembly

(1) Take out two screws (silver) ① to remove the plate heat.

(2) Remove two screws (silver) ③ to detach two connectors and one FFC. Then remove the color registration assembly ④.

(3) Detach two supporting points to remove the frame shutter ⑤.

(4) Take out two screws (silver) ⑥ to remove the color registration sensor board ⑦.

(5) Take out a screw (silver) ⑧ to remove the density sensor board ⑨.

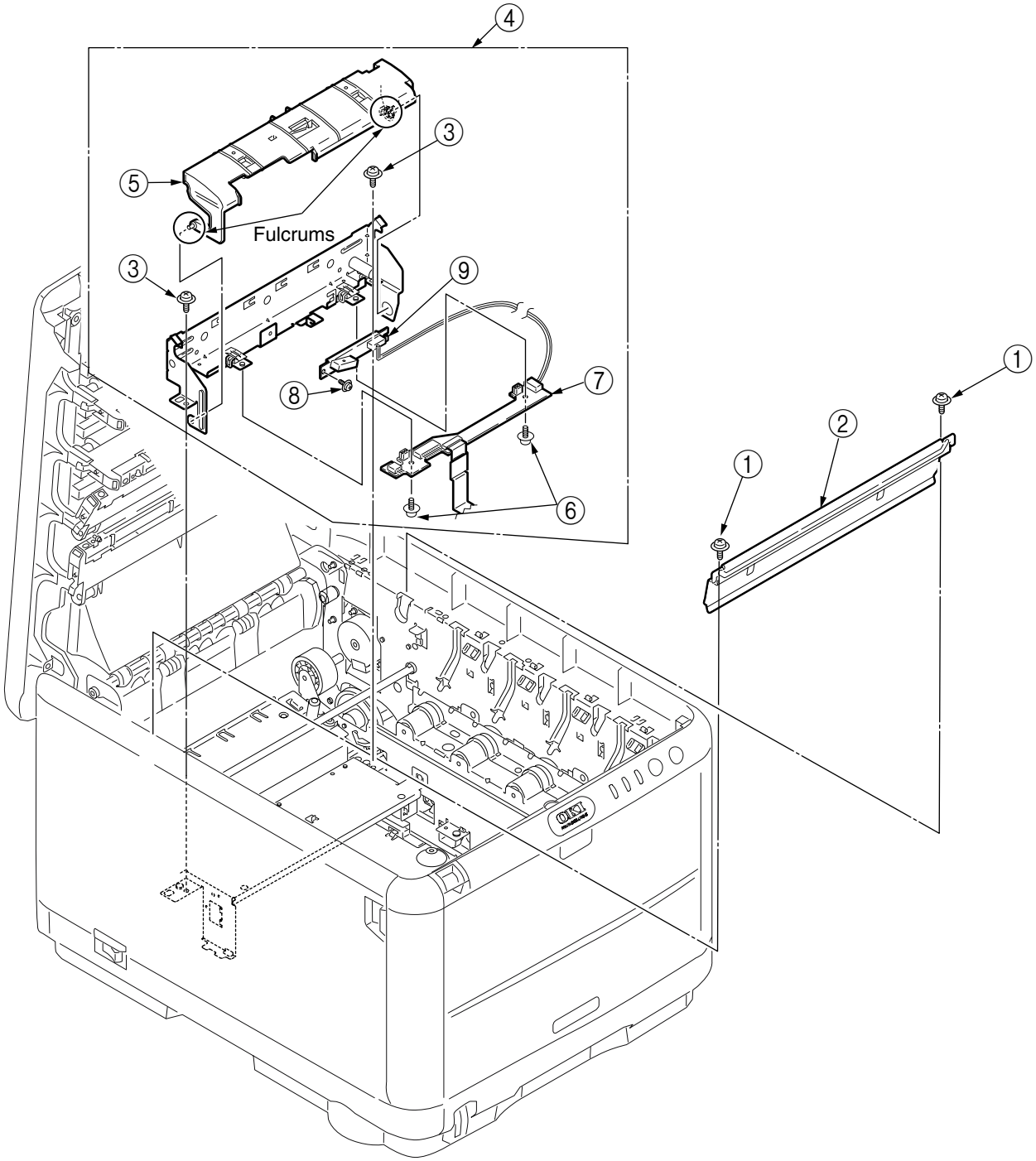


Figure 4-2-17 Color registration assembly

4.2.18 Plate shield rear

(1) Remove the left side cover. (See Subsection 4.2.1)

(2) Remove the right side cover. (See Subsection 4.2.2)

(3) Remove the rear cover. (See Subsection 4.2.3)

(4) Remove the top cover assembly. (See Subsection 4.2.5)

(5) Remove the color registration assembly. (See Subsection 4.2.17)

(6) Remove the plate shield front. (See Subsection 4.2.16)

(7) Remove the low voltage power supply. (See Subsection 4.2.22)

(8) Remove the BLA board (main board.) (See Subsection 4.2.23)

(9) Takeout two screws (silver) ① to remove the plate heat ②.

(10) Remove latches of the gear lift up ③ to detach a shaft ④.

(11) Take out three screws (silver) ⑤ to remove the plate shield rear ⑥.

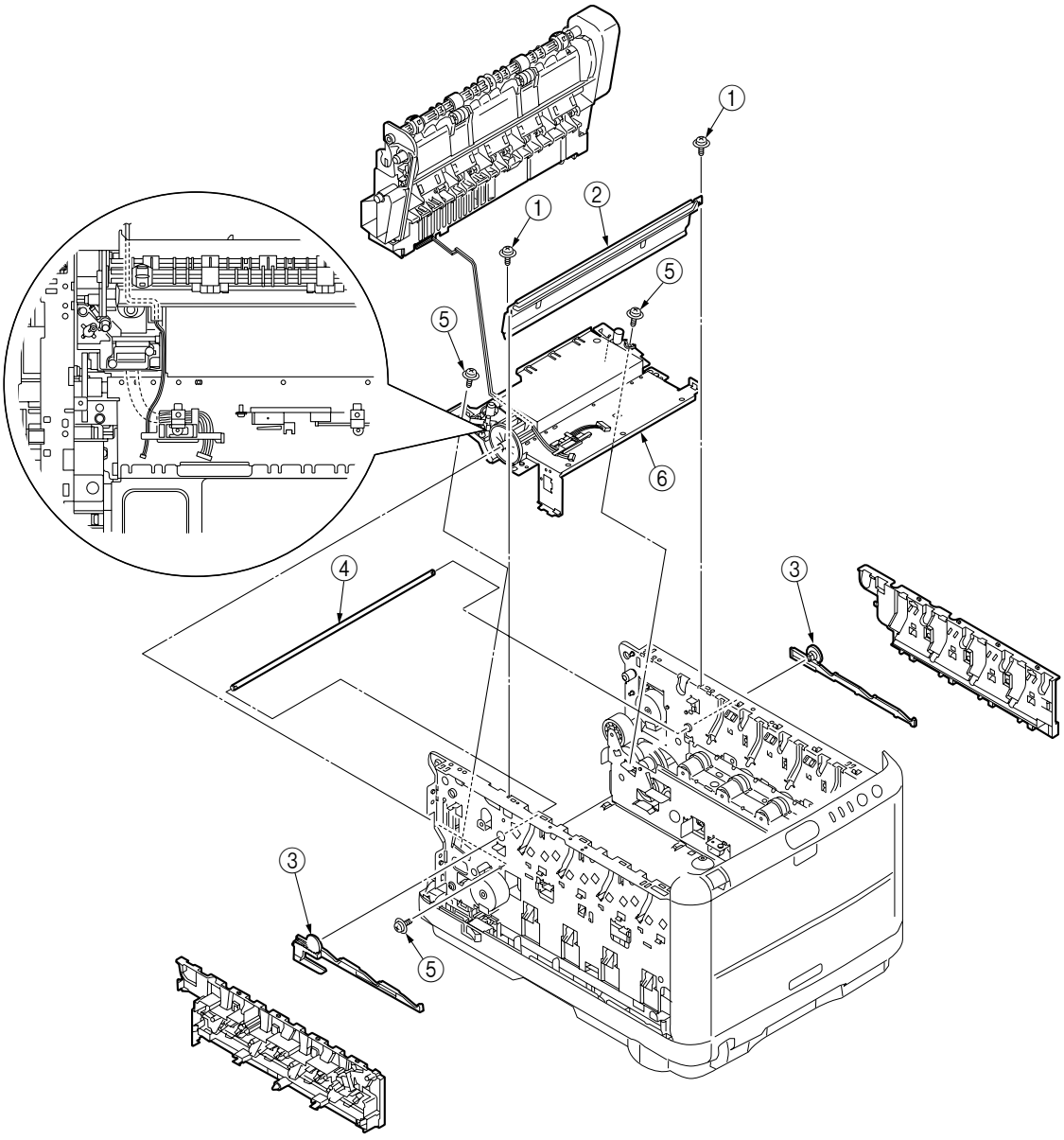


Figure 4-2-18 Plate shield rear

4.2.19 PRS board (toner sensor board)/ Gear idle dram

(1) Remove the right side cover. (See Subsection 4.2.2)

(2) Remove seven screws (silver) ① and remove bracket outer ②.

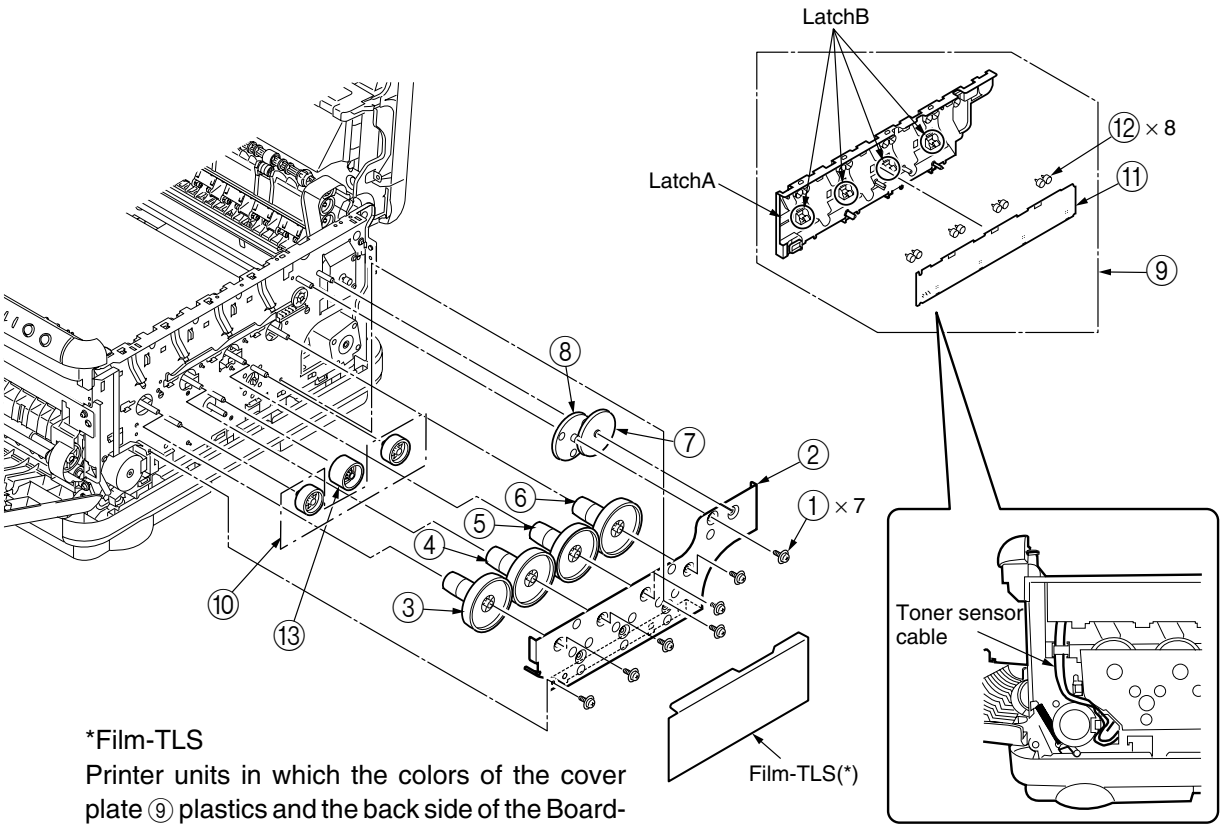
(3) Remove the drum idle gears ③, ④, ⑤ and ⑥.

(4) Remove the idle gear ⑩, ⑬.

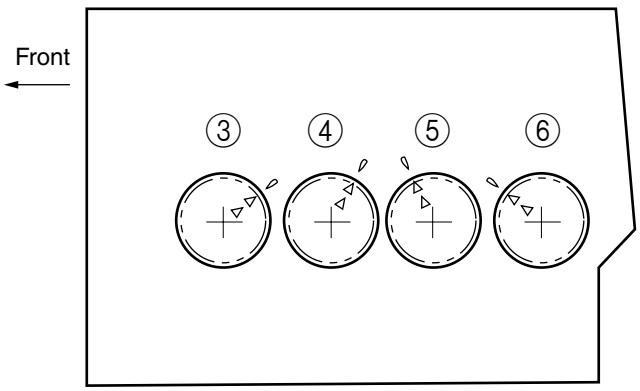
(5) Remove ID lift-up gears ⑦ and ⑧.

(6) Remove the cove plate ⑨ by sliding back the latch A.

(7) Remover the latch B to remove the Board-PRS ⑪ and the spring contact ⑫.



*Film-TLS
Printer units in which the colors of the cover plate ⑨ plastics and the back side of the Board-PRS ⑪ are changed to black (the former part is a white Board-PRE) have no flim-TLS because it is not necessary.



*Precautions for assembly
Make sure that the triangle directions at the sides of the gears match the arrow directions of the cover plate on completion of assembling drum idle gears ③ to ⑥ .

Figure 4-2-19 PRS board/ Gear idle dram

4.2.20 Main motor/ Solenoid

(1) Remove the left side cover. (See Subsection 4.2.1)

(2) Remove the right side cover. (See Subsection 4.2.2)

(3) Remove the rear cover. (See Subsection 4.2.3)

(4) Remove the front cover (See Subsection 4.2.4)

(5) Remove the plate shield front. (See Subsection 4.2.16)

(6) Remove the top cover assembly. (See Subsection 4.2.5)

(7) Remove the control panel assembly. (See Subsection 4.2.9)

(8) Remove the feeder unit assembly. (See Subsection4.2.11)

(9) Remove the guide eject assembly. (See Subsection4.2.14)

(10) Remove the color registration assembly. (See Subsection 4.2.17)

(11) Remove the plate shield rear. (See Subsection 4.2.18)

(12) Take out two screws (silver) ① to remove the part A and the side plate R assembly ②.

(13) Take out a screw (silver) ③ to remove the plate lockout ID ④.

(14) Take out five screws (silver) ⑤ to remove the part B and the bracket inner ⑥.

(15) Take out two screws (silver) ⑦ to remove the Fuser- motor ⑧.

(16) Take out two screws (silver) ⑨ to remove the DC motor ⑩.

(17) Take out two screws (silver) ⑪ to remove the ID lift up motor ⑫.

(18) Take out two screws (black) ⑬ to remove the hopping motor ⑭.

(19) Take out two screws (black) ⑮ to remove a claw C and the Gear-HP-assembly ⑯.
(Tool No. 1)

(20) Remove a spring ⑰, a screw ⑱ and solenoid ⑲.

(21) Remove a spring ⑳, a claw D of the hopping roller ㉑, claw E of the gear ㉒ , bushing ㉓, hopping roller ㉔ and frame hopping ㉕.

(22) Remove the lever end ㉖.

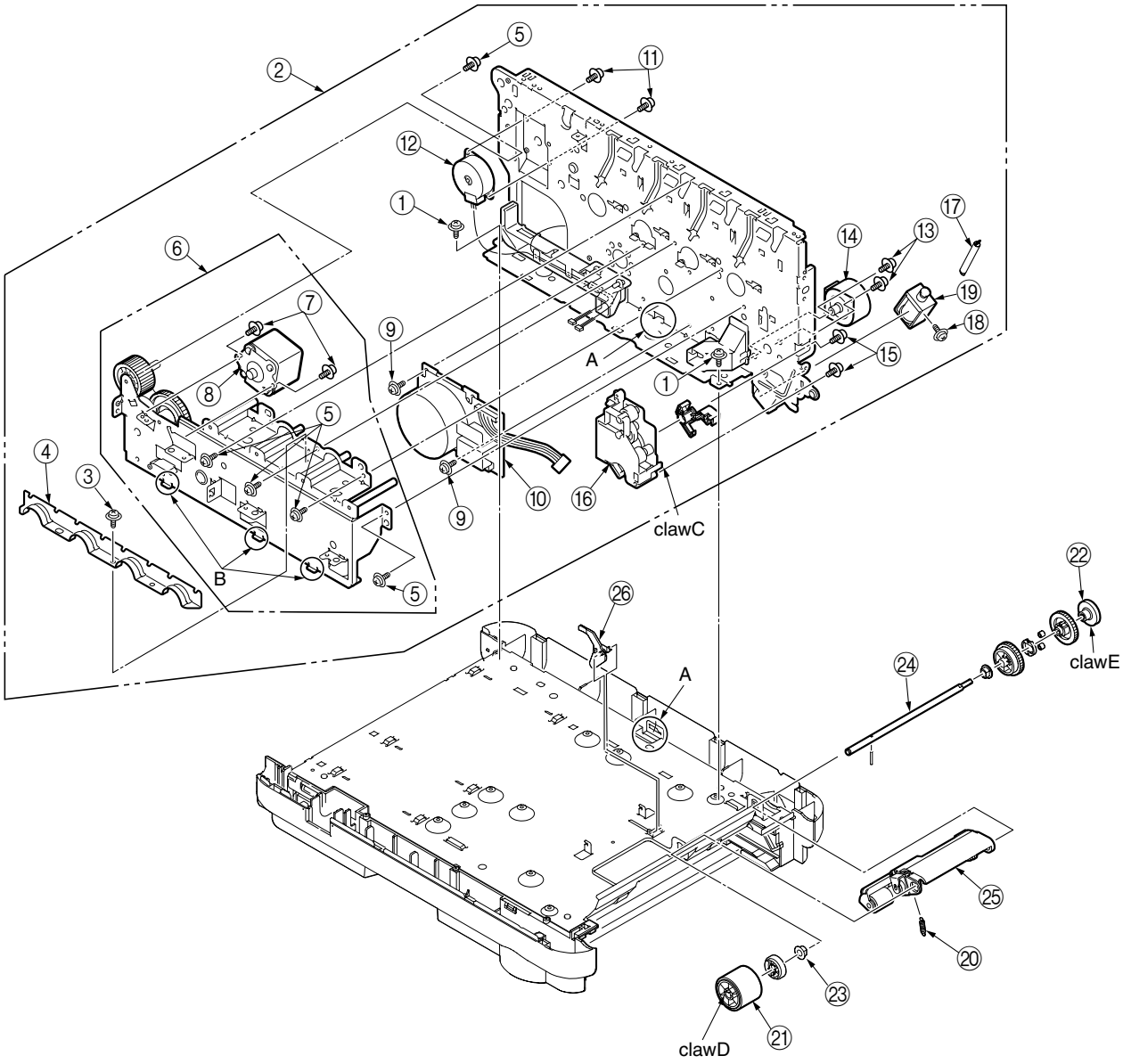


Figure 4-2-20 Main motor/ Solenoid

4.2.21 Belt motor/ High voltage board/ Cover open switch

(1) Remove the left side cover. (See Subsection 4.2.1)

(2) Remove the connector and claw A to remove the cover open switch①.

(3) Take out a screw (silver) ② and a screw (black) ③, and then remove seven claws B to detach the high voltage board ③.

(4) Take out a screw (silver) ④ to remove belt motor ⑥.

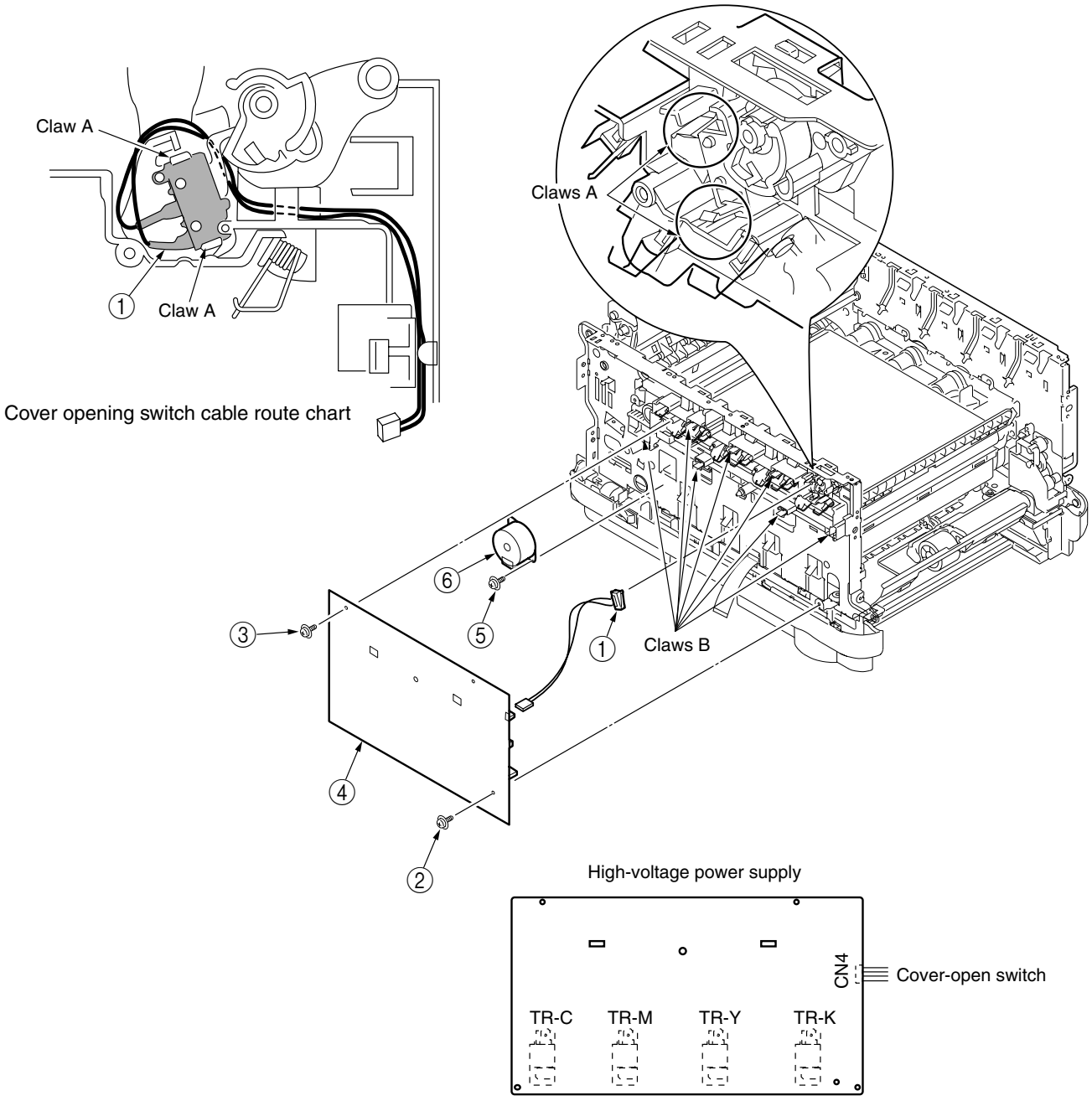


Figure 4-2-21 Belt motor/ High voltage board/ Cover open switch

4.2.22 Low voltage power supply/ Low voltage fan

⚠Warning	Risk of Electric Shock	

There is a risk of electric shock during replacement of the low voltage power supply.

Use insulating gloves or avoid direct contact with any conducting part of the power supply, and caution should be exercised during replacement.

The capacitor may take one minute to complete discharge after the AC cord is unplugged. Also, there is a possibility that the capacitor doesn't discharge because of a breakage of the PCB, etc., so remember the possibility of electric shock to avoid electric shock.

(1) Remove the left side cover (See Subsection 4.2.1)

(2) Remove the right side cover (See Subsection 4.2.2)

(3) Remove the plate shield front (See Subsection 4.2.16)

(4) Remove a cable connecting the BLA board (main board) with the Low voltage power supply.

(5) Detach the rear cover. (See Subsection 4.2.3)

(6) Remove the two (silver-colored) screws ①, release claw engagement at the two places, and pull out the low-voltage power supply ② to the position at which the AC switch connector and the fuser interface connector can be removed.

(7) Remove the AC switch connector and the fuser interface connector and detach the low-voltage power supply ②.

(8) Pull out a connector of the FAN in the direction of the arrow to extract the FAN ③.

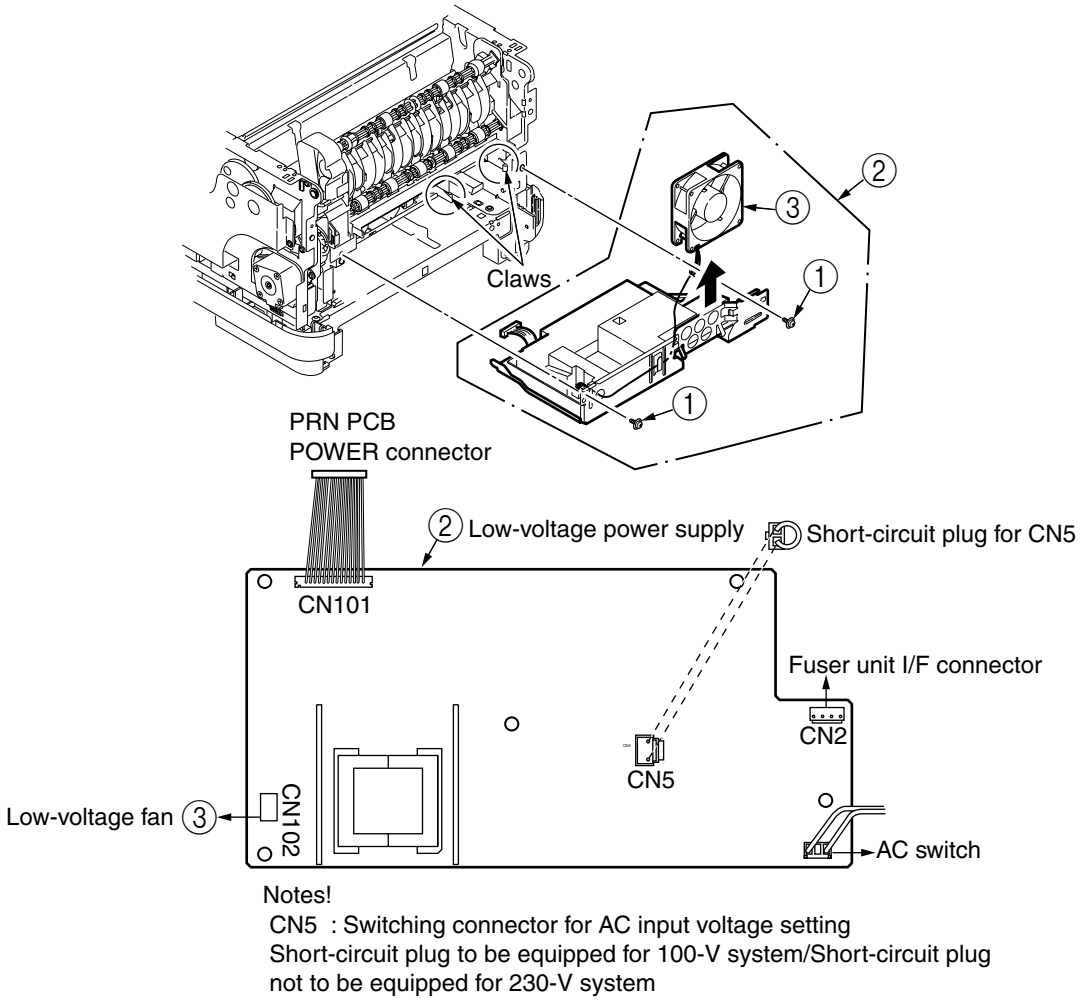


Figure 4-2-22 Low voltage power supply/ Low voltage fan

4.2.23 BLA Board (Main Board)

(1) Remove the left side cover (See Subsection 4.2.1)

(2) Remove the right side cover (See Subsection 4.2.2)

(3) Remove the plate shield front (See Subsection 4.2.16)

(4) Remove all connectors connecting to the BLA board (main board).

(5) Remove the rear cover. (See Subsection 4.2.3)

(6) Remove the low voltage power supply (See Subsection 4.2.22)

(7) Take out five screws (silver) ① and two screws (silver) to remove the BLA board (main board) ③.

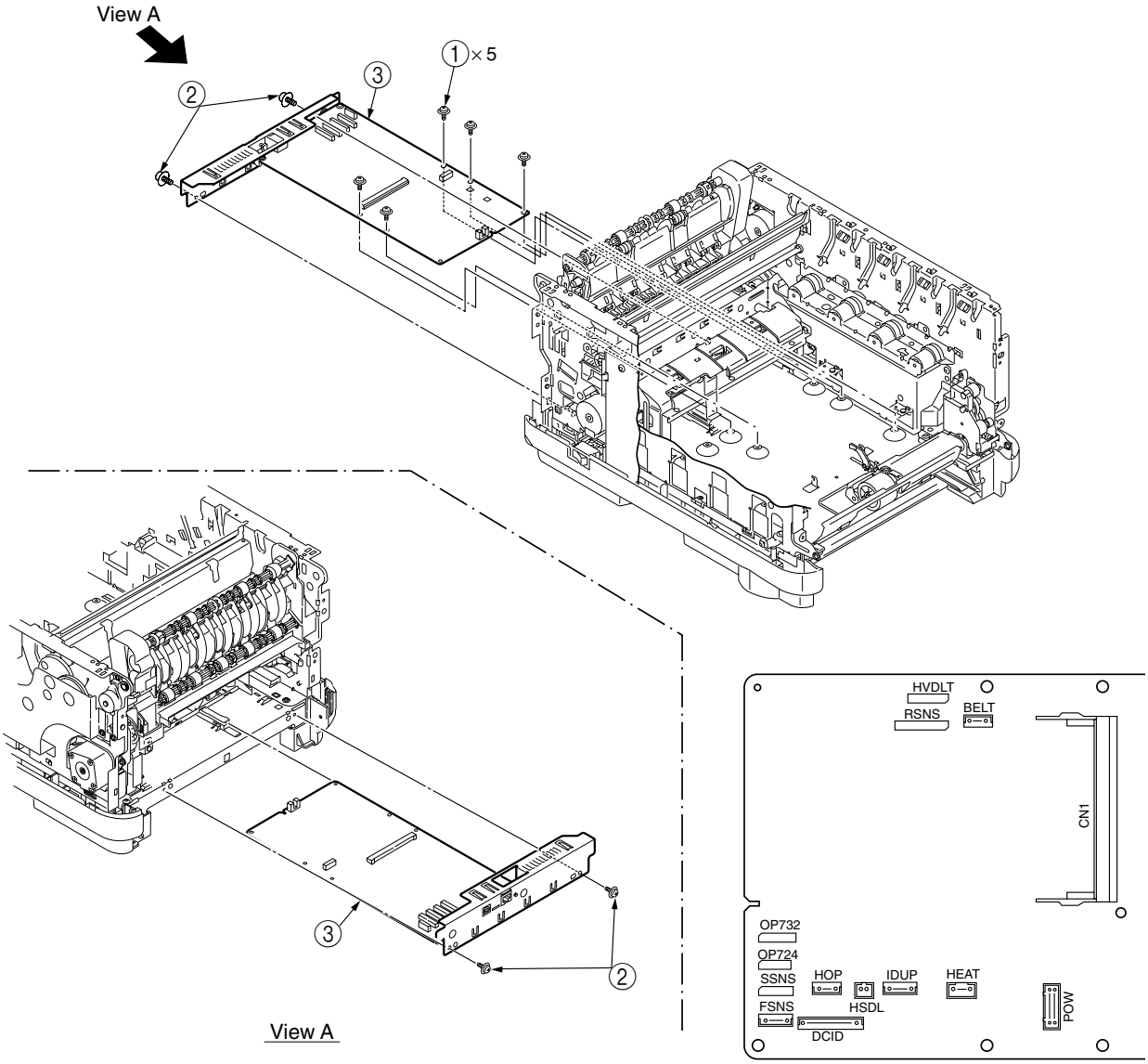


Figure 4-2-23 BLA Board

4.3 Lubricating points

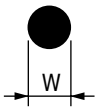
This subsection indicates the lubricating points of the printer. Conversely, it means that any other parts than the specified lubricating points must not be lubricated.
There is no need to lubricate in the midst of a disassembling job. However, if lubricating oil has been wiped off, supply the specified oil.

Lubricating work

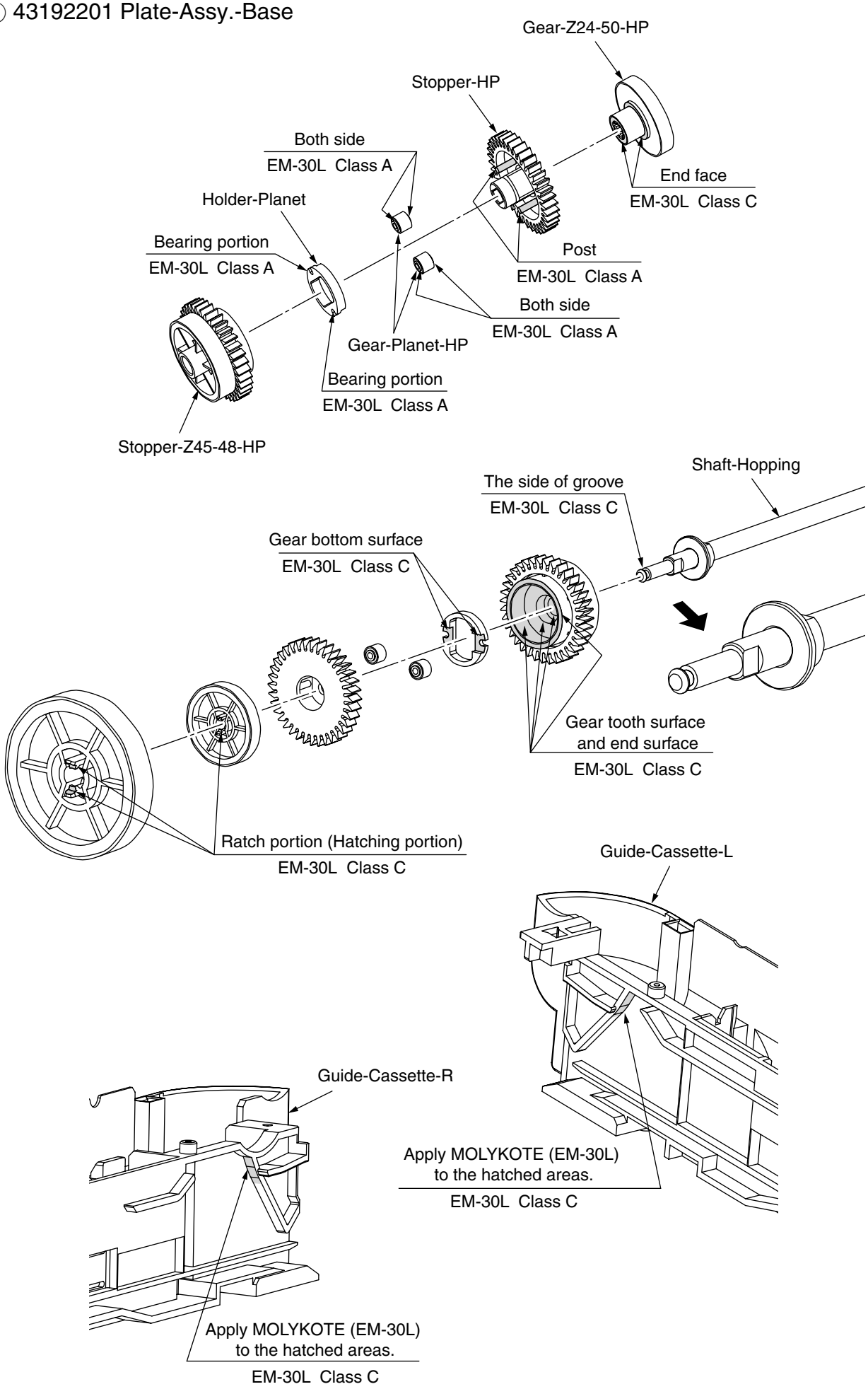
(1) Symbols and names of oils
EM-30L: MOLYKOTE EM-30L
HP-300: MOLYKOTE HP-300
PM : Pan Motor Oil 10W-40 or ZOA 10W-30

(2) Boundary samples of grease

Class	S	A	B	C	D	E	F
Amount of grease(cc)	0.0005	0.003	0.005	0.01	0.03	0.05	0.1
W(mm)	1.24	2.25	2.67	3.37	4.86	5.76	7.26
Sample	•	●	●	●	●	●	●

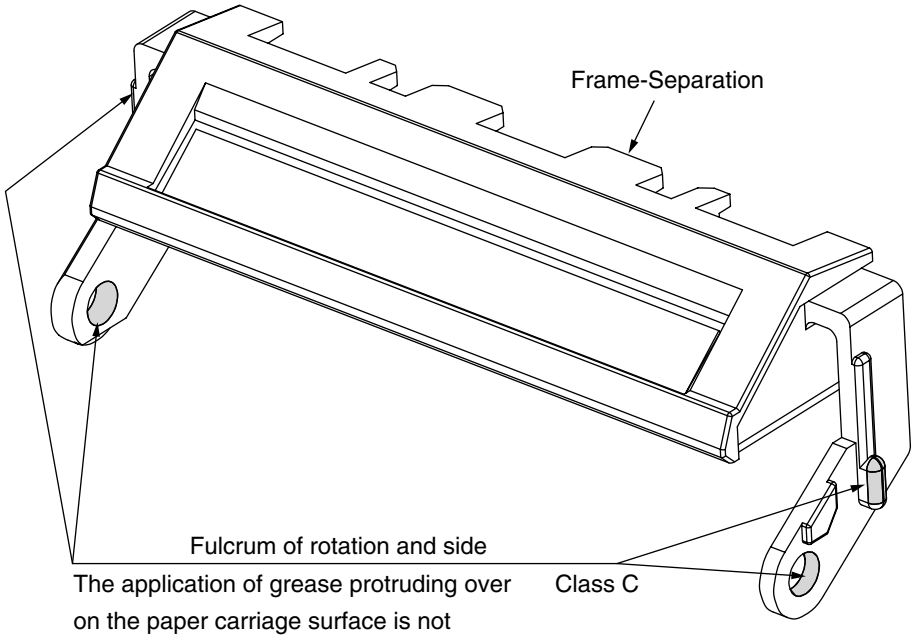


① 43192201 Plate-Assy.-Base



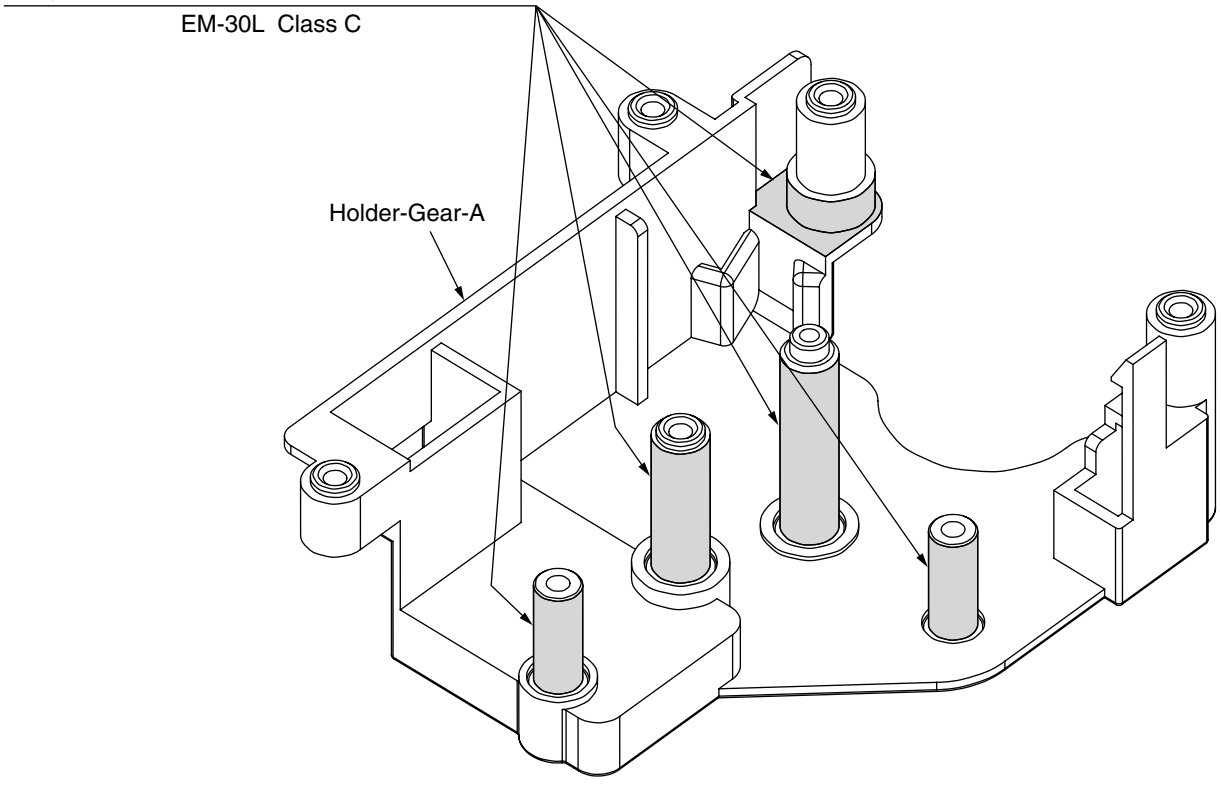
② 43192601 Cassette-Assy.

The MOLYKOTE (EM-30L) should be applied to the hatched areas portions shown in the figure below before assembly. (At both sides)

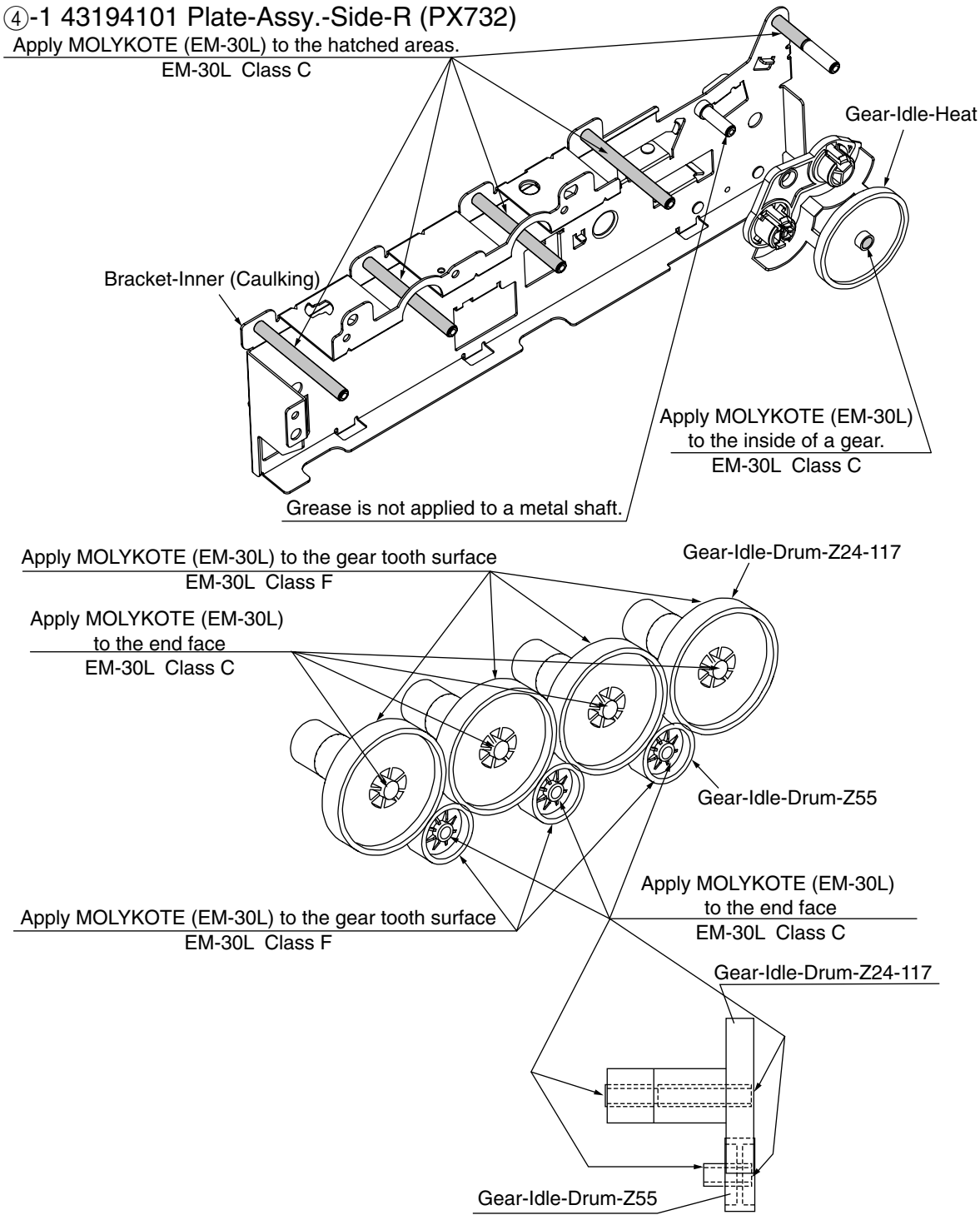

Frame-Separation
Fulcrum of rotation and side
The application of grease protruding over on the paper carriage surface is not permitted.
Class C

③ 43197301 Gear-Assy.-HP

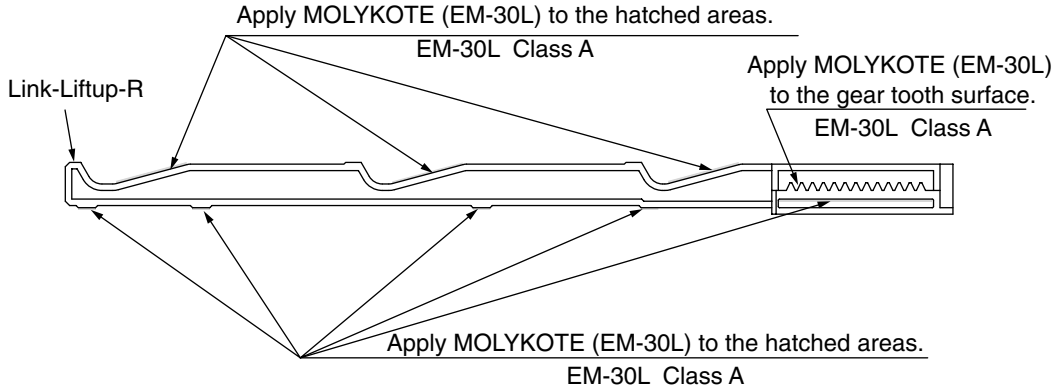
Apply MOLYKOTE (EM-30L) to the hatched areas.



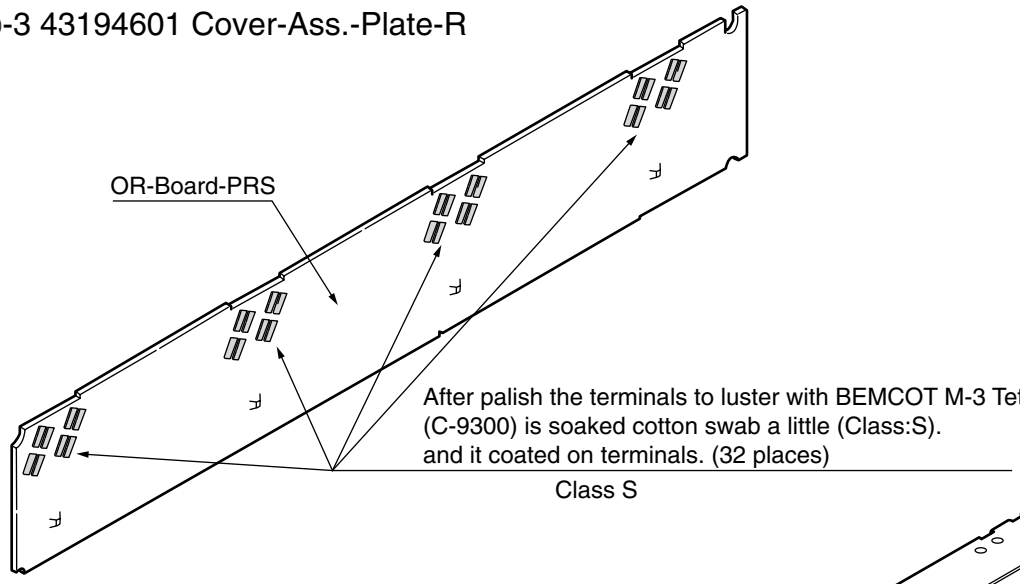
④-1 43194101 Plate-Assy.-Side-R (PX732)



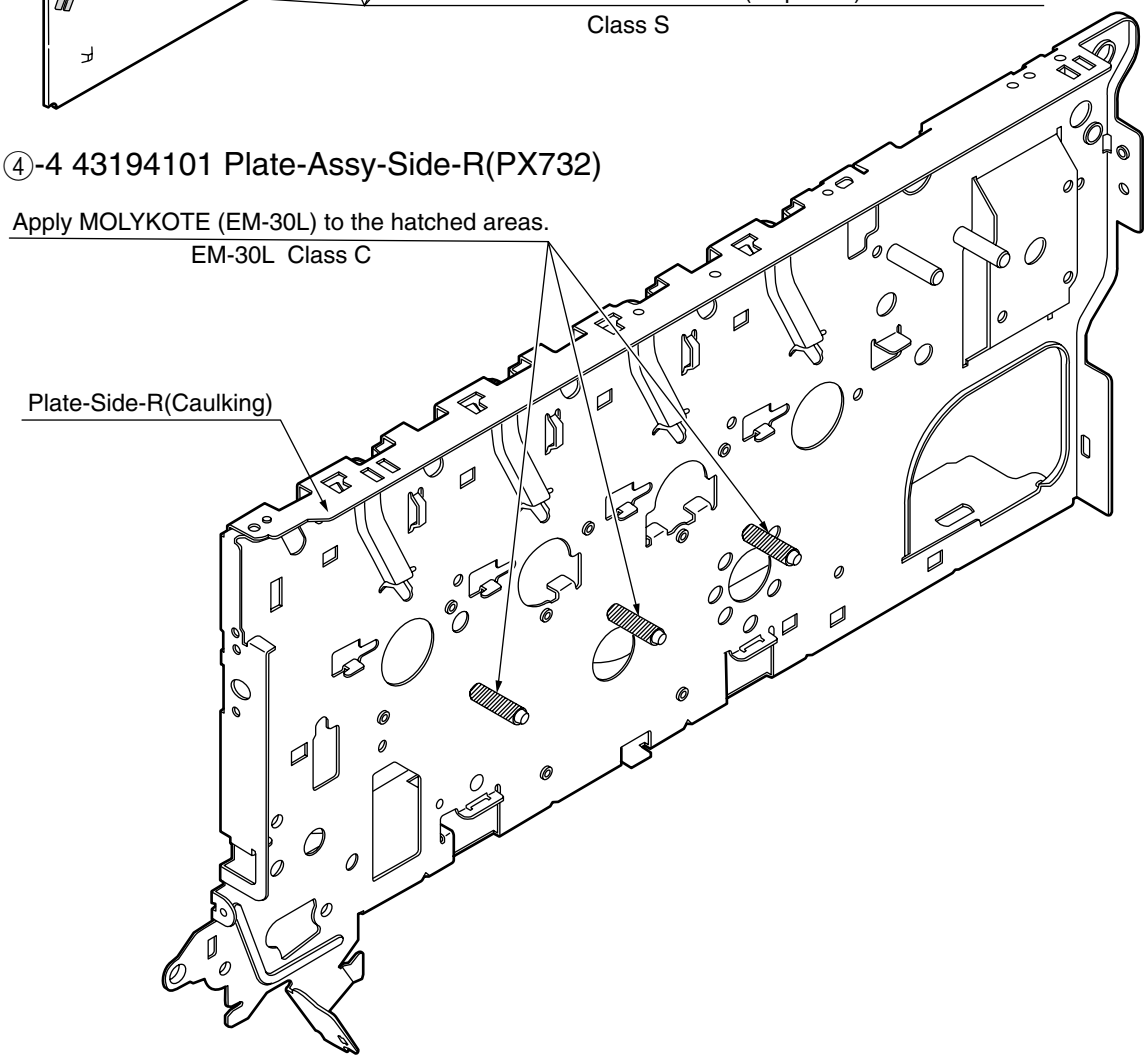
④-2 43194101 Plate-Assy.-Side-R (PX732)


Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class A
Link-Liftup-R
Apply MOLYKOTE (EM-30L)
to the gear tooth surface.
EM-30L Class A
Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class A

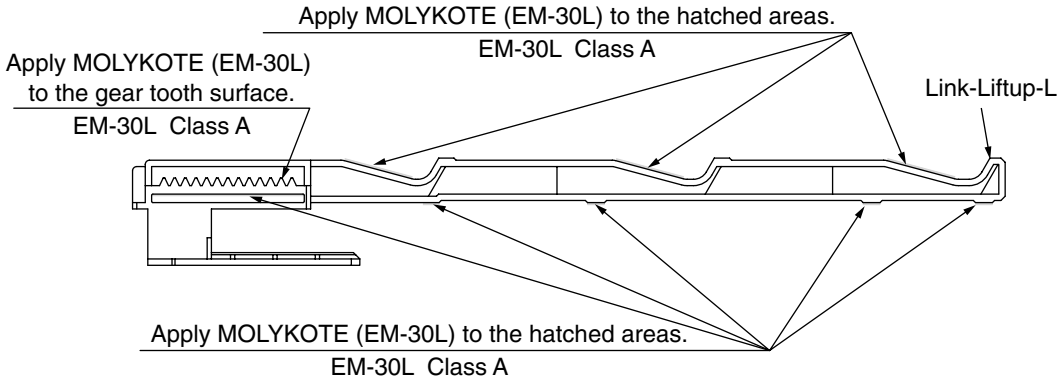
④-3 43194601 Cover-Ass.-Plate-R


OR-Board-PRS
After palish the terminals to luster with BEMCOT M-3 Tetfa
(C-9300) is soaked cotton swab a little (Class:S).
and it coated on terminals. (32 places)
Class S

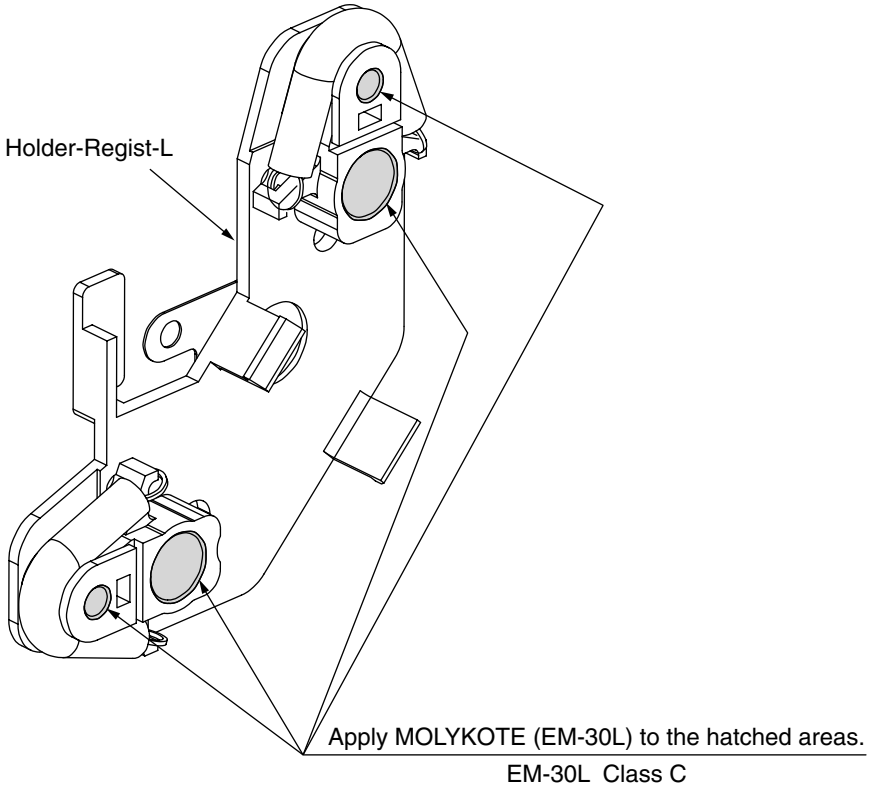
④-4 43194101 Plate-Assy-Side-R(PX732)



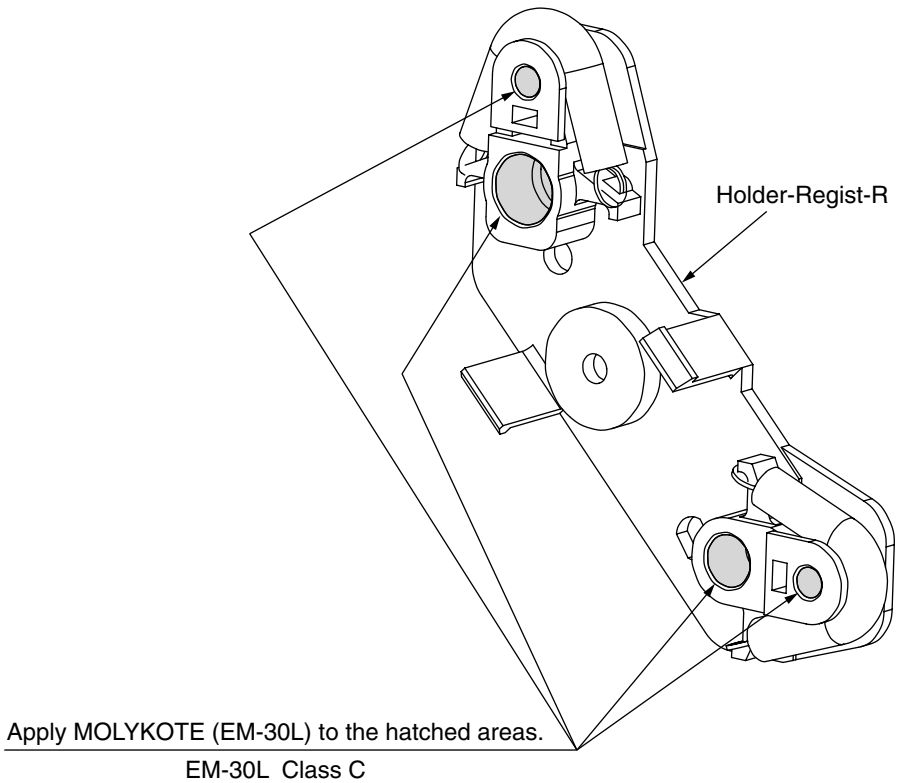
⑤ 43200101 Plate-Assy.-Side-L (PX732)


Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class A
Apply MOLYKOTE (EM-30L)
to the gear tooth surface.
EM-30L Class A
Link-Liftup-L
Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class A

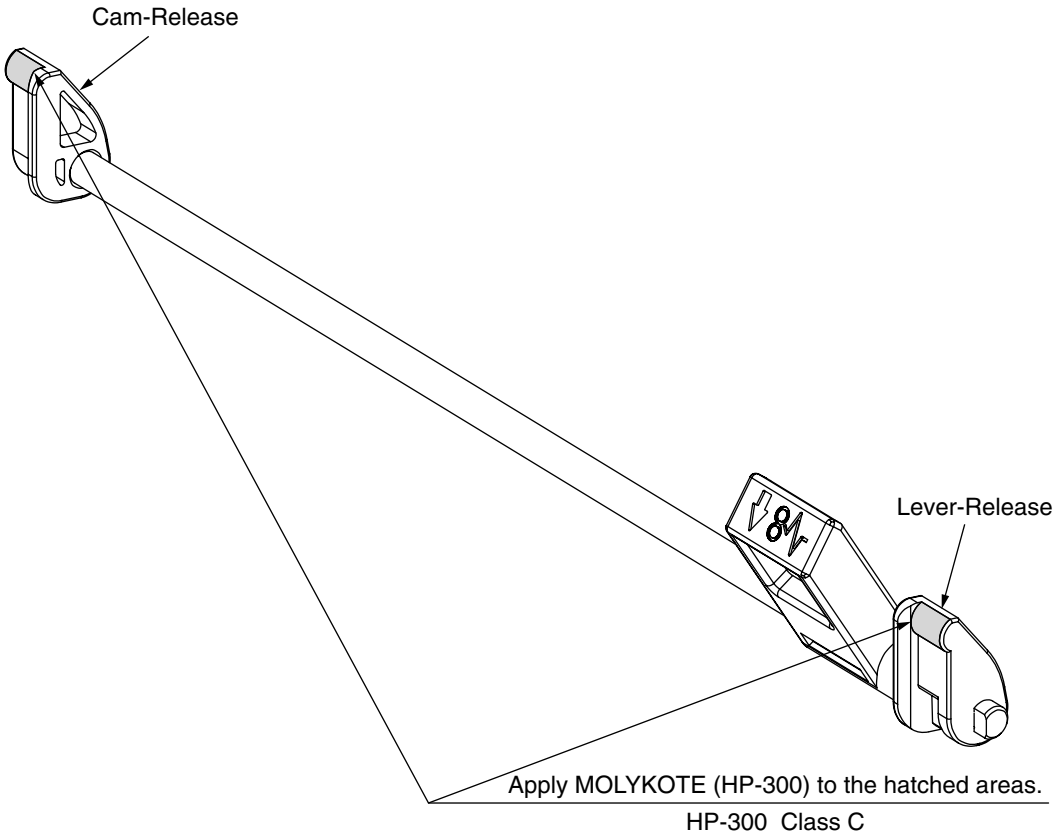
⑥ 43209701 Holder Assy.-Regist-L



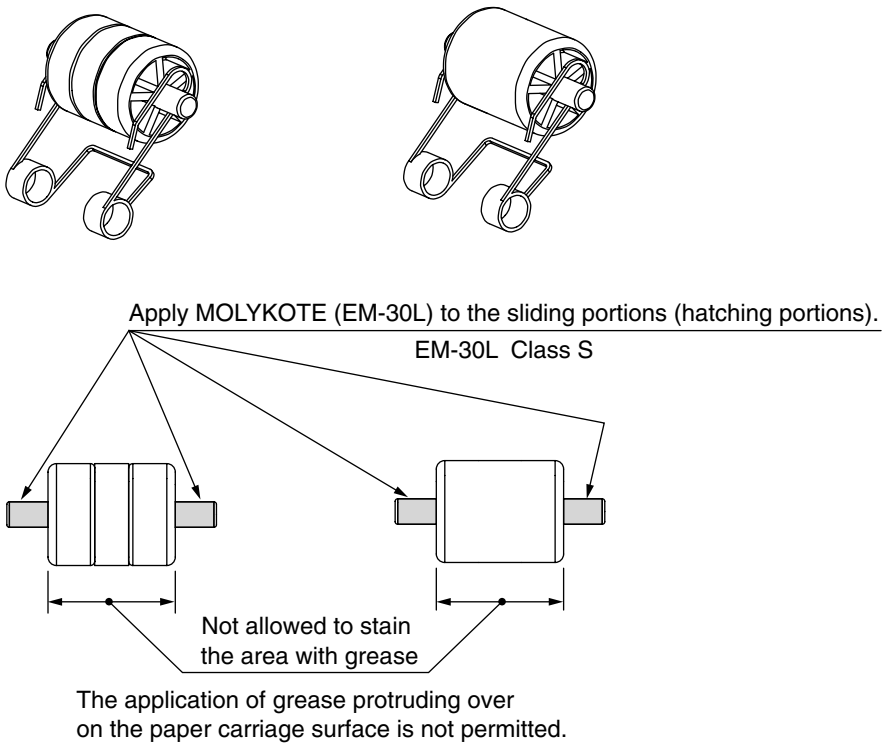
⑦ 43210301 Holder Assy.-Regist-R



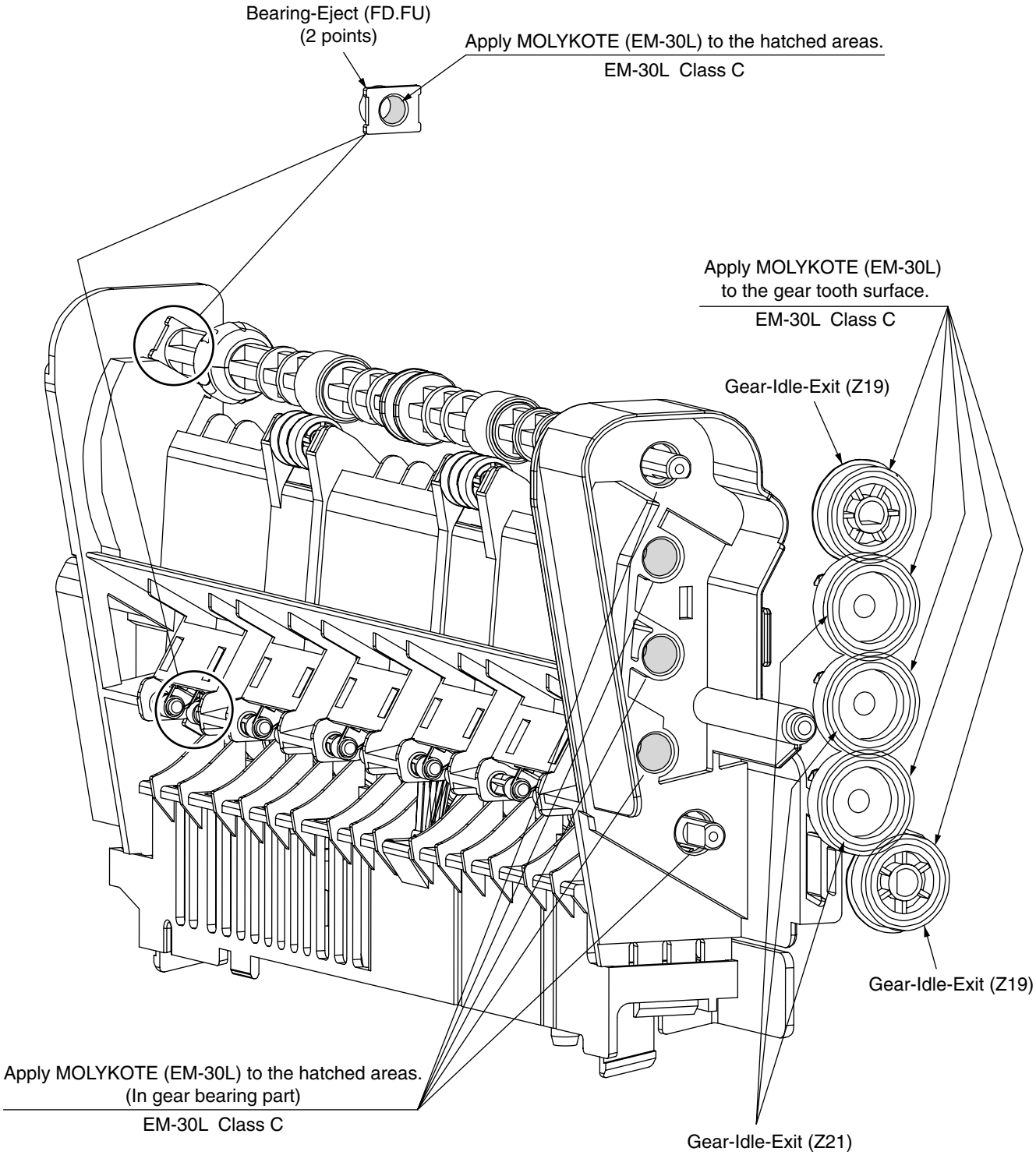
⑧ 43217001 Fuser-Assy. (n)
43396001 Fuser-Assy. (Ln)



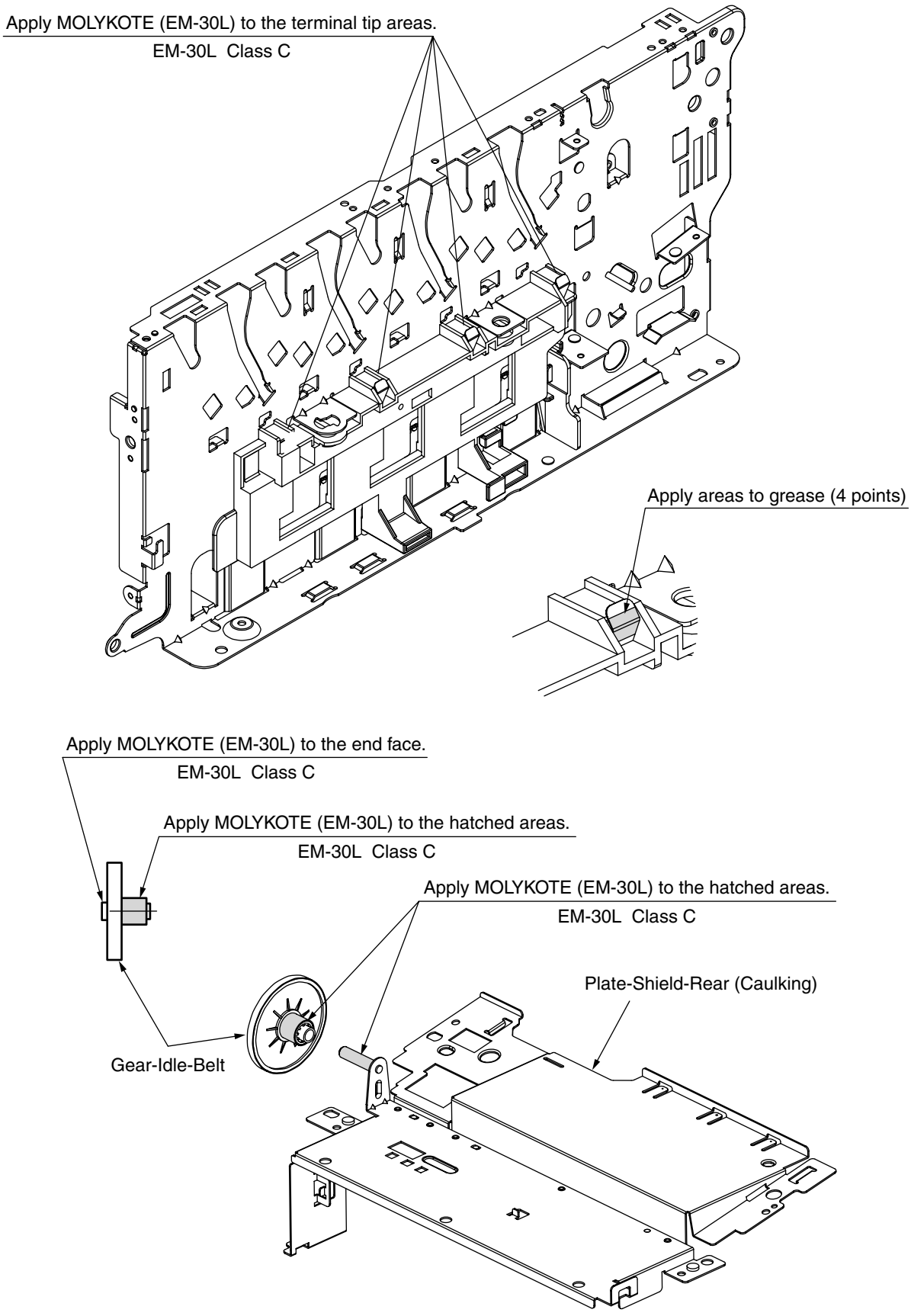
⑨-1 43206501 Guide-Assy.-Eject-U


Apply MOLYKOTE (EM-30L) to the sliding portions (hatching portions).
EM-30L Class S
Not allowed to stain
the area with grease
The application of grease protruding over
on the paper carriage surface is not permitted.

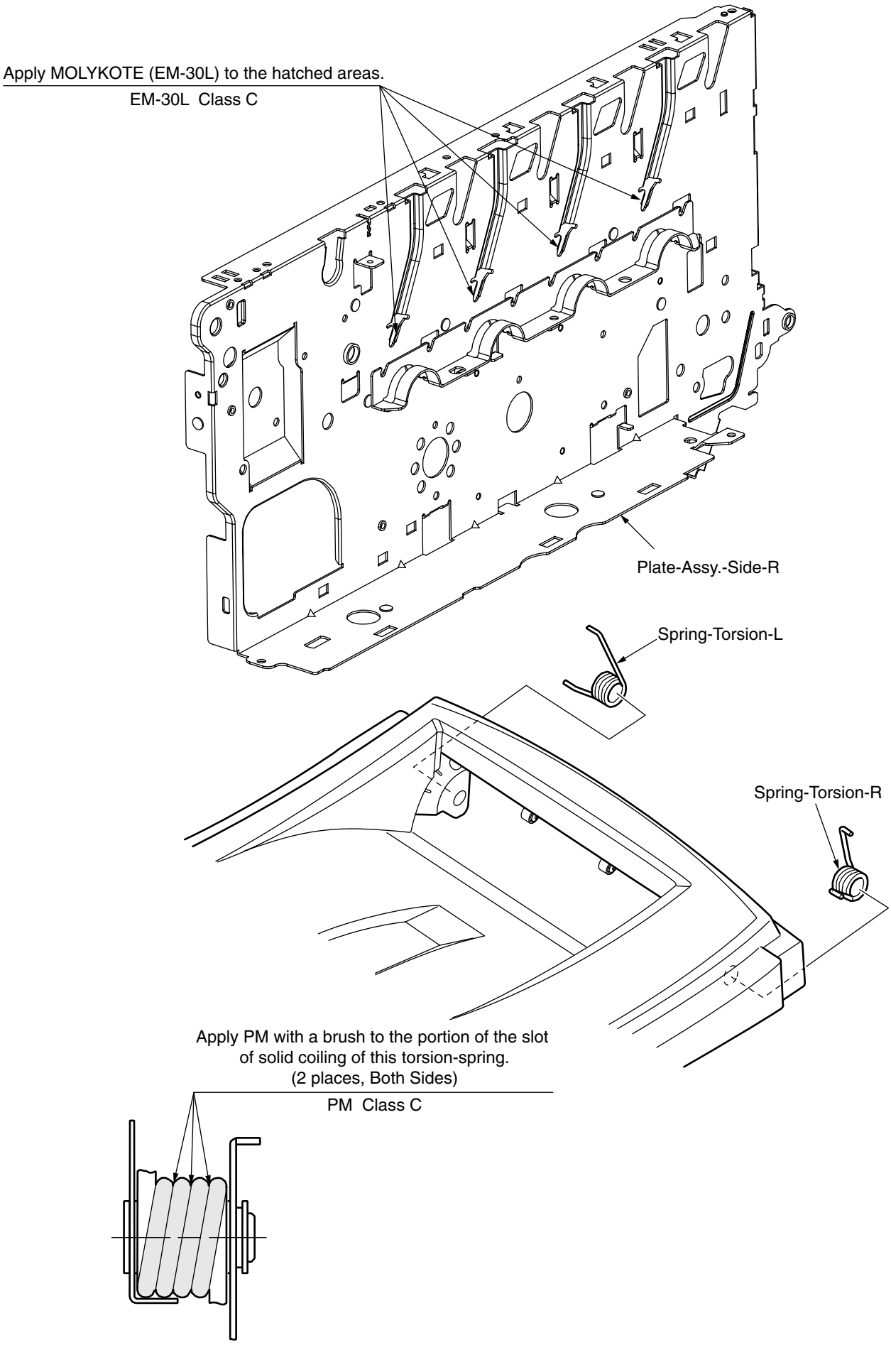
⑨-2 43206501 Guide-Assy.-Eject-U



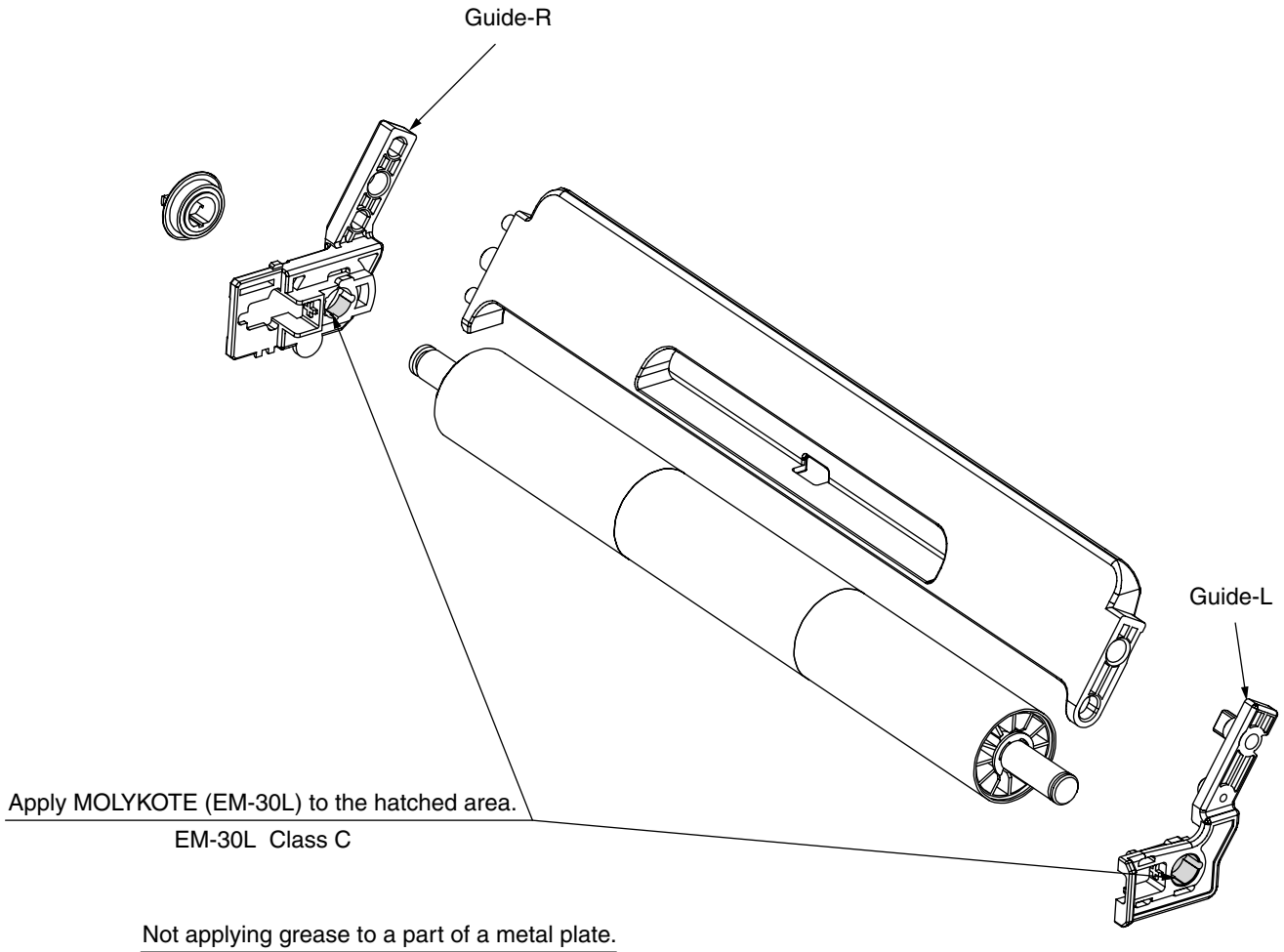
⑩-1 43192001 Printer-Unit-PX732

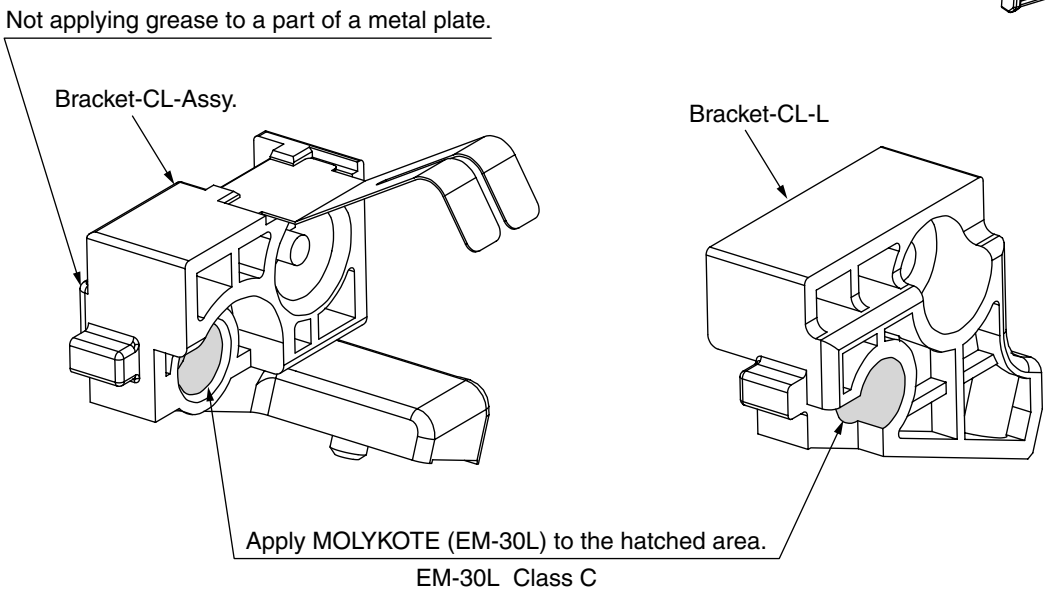

Apply MOLYKOTE (EM-30L) to the terminal tip areas.
EM-30L Class C
Apply areas to grease (4 points)
Apply MOLYKOTE (EM-30L) to the end face.
EM-30L Class C
Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class C
Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class C
Plate-Shield-Rear (Caulking)
Gear-Idle-Belt

⑩-2 43192001 Printer-Unit-PX732

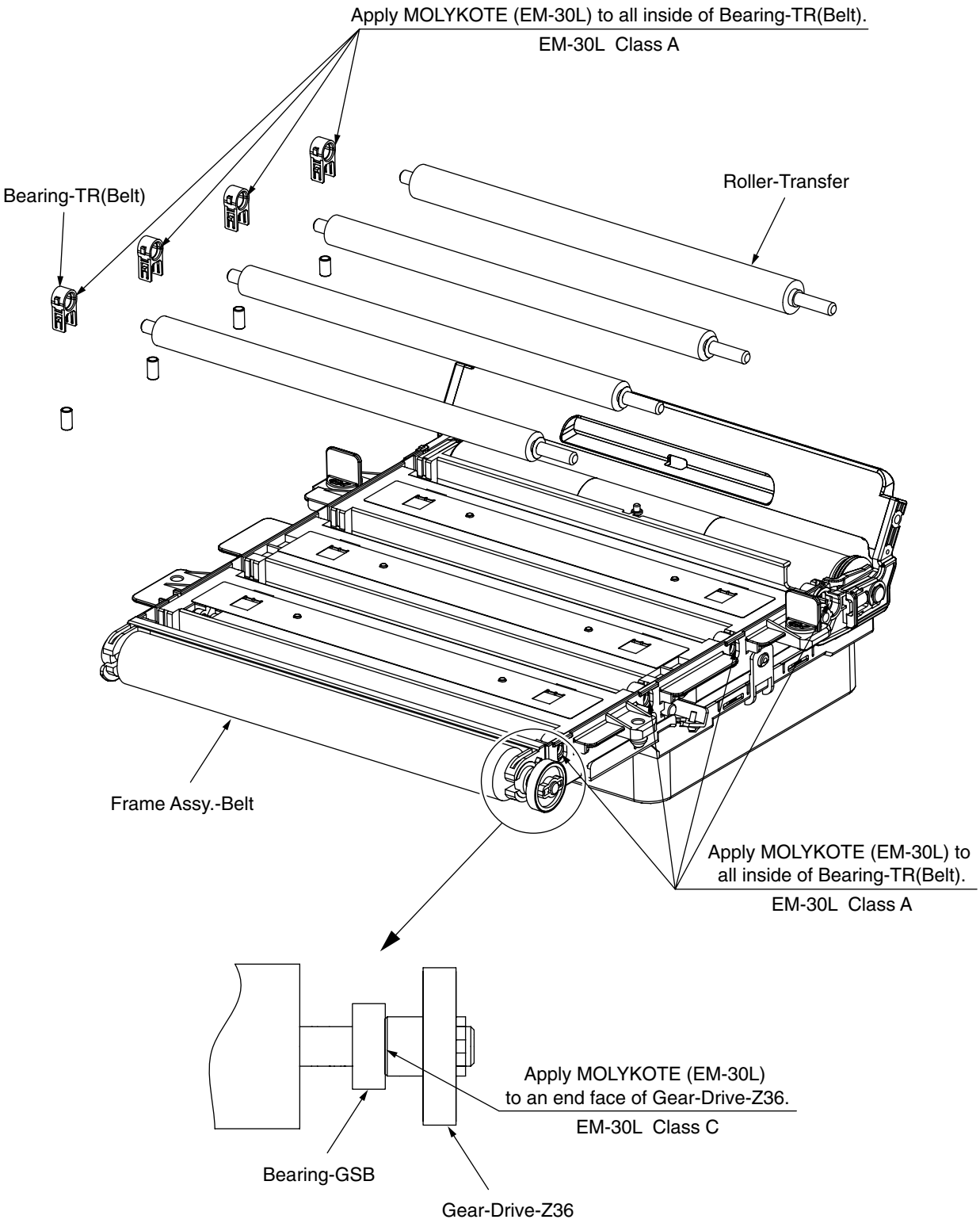

Apply MOLYKOTE (EM-30L) to the hatched areas.
EM-30L Class C
Plate-Assy.-Side-R
Spring-Torsion-L
Spring-Torsion-R
Apply PM with a brush to the portion of the slot of solid coiling of this torsion-spring. (2 places, Both Sides)
PM Class C

⑪-1 43216001 Belt-Unit (PX732)

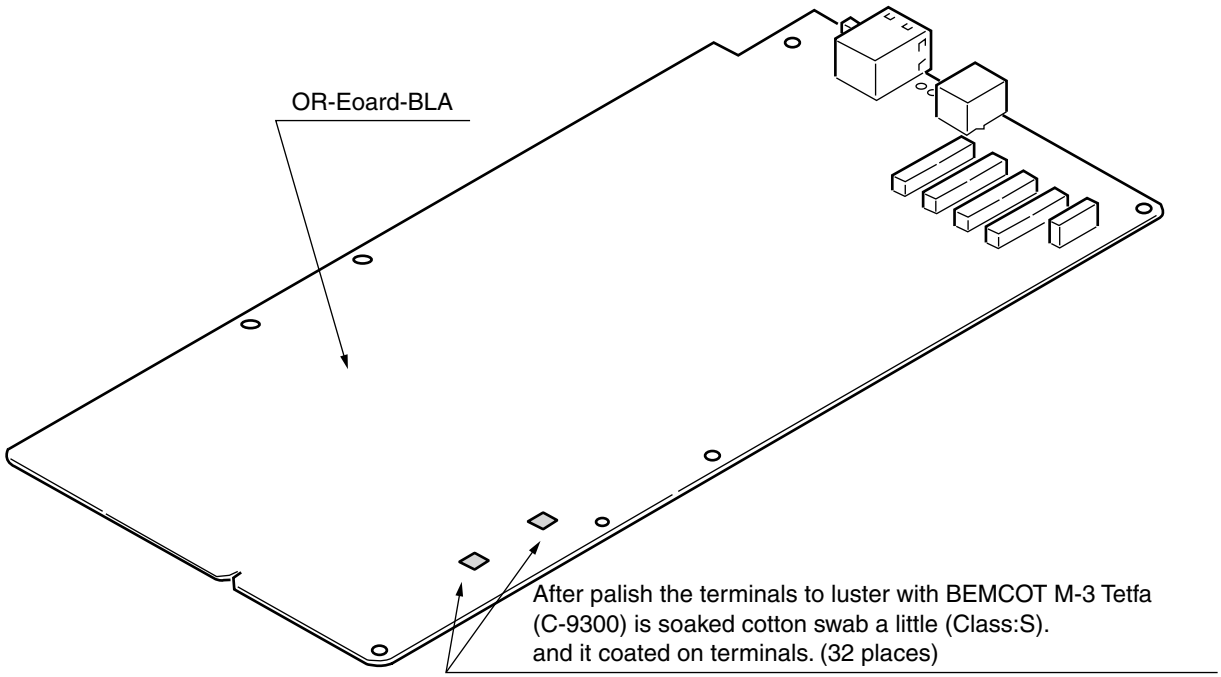



Not applying grease to a part of a metal plate.
Bracket-CL-Assy.
Bracket-CL-L
Apply MOLYKOTE (EM-30L) to the hatched area.
EM-30L Class C

⑪-2 43216001 Belt-Unit (PX732)



⑫ 43416001 Borad-Assy PUCU


OR-Eoard-BLA
After palish the terminals to luster with BEMCOT M-3 Tetfa
(C-9300) is soaked cotton swab a little (Class:S).
and it coated on terminals. (32 places)
Class S

5. MAINTENANCE MENU

By using the maintenance utility you can adjust this machine.

5.1 Maintenance Utility

Based on the maintenance utility, users can make adjustments listed in table 5-1.
The details of maintenance utility are as follows.

1) Maintenance utility operating manual : 42678801FU01 Rev.17 or later(Japanese version)
: 42678801FU02 Rev.17 or later(English version)
2) Program of the maintenance utility is as below.
* It is possible to download a program of the maintenance utility.
(Person in charge of the manual, Window Person is available to access.)

Applicable Operating System	File Name	Part Number
Win98/Me	MuWin.exe	42678801FW01 Rev.17 or later
Win2000/XP	MuWin.exe	42678801FW02 Rev.17 or later

Table 5-1 Maintenance Utility Adjustment Items (1/2)

	Item	Adjustment	Section No. of the Maintenance Utility Operation
1	Change the main (BLA) circuit board	Copy of the EEPROM used for PU of the main circuit board Purpose of adjustment: if it's necessary to change to other main circuit board in order to change maintenance, users should copy the above mentioned data to other main circuit board.	Section 2.4.1.1.1
2	Set PU Serial number	Rewrite the serial number of the recorded device used for PU. Purpose of adjustment: if it is impossible to copy the EEPROM of PU (I/F error, etc.), users can make settings of the circuit board changed for maintenance.	Section 2.4.1.1.2.2
3	Factory/Shipping mode	Switch between factory mode and shipping mode. Purpose of adjustment: if it is impossible to copy the EEPROM of PU (I/F error, etc.), users can make settings of the circuit board changed for maintenance. The default of circuit boards for maintenance is usually set to factory mode, so by this function, setting to shipping mode is necessary.	Section 2.4.1.1.2.3
4	Change the main (BLA) circuit board	Rewrite the set value of the EEPROM used for CU of the main circuit board. Purpose of adjustment: if it's necessary to change to other main circuit board in order to change maintenance, users should rewrite the EEPROM data to other main circuit board.	Section 2.4.1.1.3
5	Set the information of the serial number	Choose the recorded printer serial number in the EEPROM of CU and change the output mode and serial number of device.	Section 2.4.1.1.4.3
6	Setting information of circuit board items	Confirm the information of serial number and the Factory/ Shipping mode.	Section 2.4.1.1.7
7	USB software update	Update the USB software	Section 2.4.2.2.1
8	NIC software update	Update the NIC software	Section 2.4.2.2.3
9	Set the Mac address	Set the Mac address	Section 2.4.2.2.5
10	Function of consumable counter maintenance	Copy of the consumable counter Drum counter (Y, M, C, K) Fuser counter Belt counter Toner counter (Y, M, C, K) Purpose of adjustment: when the in-use consumables are used in other device, the value of every consumable counter will be copied.	Section 2.4.1.2.1
11	Set the sensitivity correction value of the color density sensor [Prohibited to use]	Set the sensitivity correction value of the color density sensor.	Prohibited
12	Set the information of desired market/PnP	Set and confirm the printer(CU)'s desired market, device ID and USB ID.	Section 2.4.1.2.9
13	Initialize the FLASH forcibly	Initialize the FLASH forcibly	Section 2.4.2.2.10
14	The function of saving net work log	Save the log files of net work	Section 2.4.2.2.11

Table 5-1 Maintenance Utility Adjustment Items (2/2)

	Item	Adjustment	Section No. of the Maintenance Utility Operation
15	Display the consumable counter	Confirm the current value of consumable counter	Section 2.4.1.3.1
16	Confirm the setting value of menus	Display the setting values set in the printer (CU)	Section 2.4.1.3.2
17	Confirm the information of printer	Confirm the Mac address and various F/W versions of the printer	Section 2.4.1.3.3
18	Confirm the memory value	Confirm the information of memory in the printer(CU)	Section 2.4.1.3.4
19	Test printing	Execute the local printing function and the transmission of specified files. Purpose of adjustment: to confirm the operation of printer unit and the transmission of downloaded files.	Section 2.4.1.4.1
20	Switch scan test	Execute the switch scan test. Purpose of adjustment: to confirm the operation of every sensor	Section 2.4.1.5.1
21	Motor clutch test	Execute the motor clutch test. Purpose of adjustment: to confirm the operation of every motor and clutch	Section 2.4.1.5.2
22	Color registration test	Execute the Color registration test	Section 2.4.1.5.3
23	Density correction test	Execute the density correction test	Section 2.4.1.5.4
24	Set the control parameter of auto density correction [Prohibited to use]	Set the control parameter of auto density setting	Prohibited
25	Initialize NVM [Prohibited to use]	Initialize NVM	Prohibited
26	Counter display	Confirm the consumables, consumable continuance and abandoned toner counter	Section 2.4.1.5.7
27	Set local parameter	Switch between factory mode and shipping mode; confirm the state of FUSE	Section 2.4.1.5.8
28	Set engine parameter	Set the engine parameter	Section 2.4.1.5.9

Note: Users cannot operate/set the [Prohibited] items since there is a danger of abnormal operation.

5.2 Various printing of the printer unit with controller

Status page printing

Print the information of program version and composition of the controlling parts.

Operation:

1. Under [ONLINE] state, press the ONLINE key for 2 seconds then release it.

Network Information printing

Operation:

1. Under [ONLINE] state, press the TEST switch which is at the side of network connector on the back of the printer for 5 seconds, then release it.

Demo printing:

Print the inside demo pattern in the ROM.

Operation:

1. Under [ONLINE] state, press the ONLINE key for 5 seconds then release it.

5.3 Switch pressing function when power supply is turned on

When power supply of printer is turned on, the functions of usable switches are as follows. And, the switches below are effective when pressed before LED is lighted in the special start confirming pattern.

(1) Cover Open and CANCEL switch
Despite of warning/error, always start by online mode (factory support function). If the function is available, the LED will be in lighting state for 2 seconds

(2) Cover Open and ONLINE key
Completely initialize FLASH(resident) when it is in abnormal state. During the initializing process, all the LED will be in lighting state. Nothing will be done when the FLASH is normal.

(3) Cover Open and ONLINE key and CANCEL switch
Initialize EEPROM when it is in abnormal state. Nothing will be done when the EEPROM is normal.

5.4 Settings after Parts Replacement

The necessary adjustments after the parts exchange are explained as follows.

Replaced Part	Adjustment
LED Head	Not required.
Image Drum Cartridge (Any of Y, M, C and K)	Not required.
Fuser Unit	Not required.
Belt Unit	Not required.
Main (BLA Board)	Copy the EEPROM information; utility is required

5.4.1 Notes when exchanging the main circuit board and EEPROM setting after the exchange of BLA circuit board

1. When it is possible to access to the EEPROM of the circuit board to be removed
   (When neither SERVICE CALL 40 [CU EEPROM Error] nor SERVICE CALL 105 [Engine EEPROM Error] is displayed.)

   (1) By using the PU board replacement function of the maintenance utility (maintenance utility operation manual, Section 2.4.1.1.1, PU board replacement function and Section 2.4.1.1.3, CU board replacement function), retrieve information about the CU EEPROM and the PU EEPROM from the circuit board that is to be removed, and store the information temporarily in the HDD of PC.

   (2) By using the PU board replacement function of the maintenance utility (maintenance utility operation manual, Section 2.4.1.1.1, PU board replacement function and Section 2.4.1.1.3, CU board replacement function), copy the information about the CU EEPROM and the PU EEPROM information stored in the HDD of PC by (1) to the EEPROM of a new circuit board to be installed.

   Note: When using the maintenance utility to get the EEPROM information or writing the information, please set the printer to “forcible ONLINE mode” following the procedures in 5.3.(1), then EEPROM can be accessed.

2. When it is impossible to access to the EEPROM of the circuit board to be removed
   When SERVICE CALL 40 [CU EEPROM Error] or SERVICE CALL 105 [Engine EEPROM Error] is displayed on the status monitor by handling the circuit board to be removed, or when the EEPROM data cannot be read out, perform maintenance with the maintenance utility according to the following procedure after replacing with a new circuit board.
   (1) [When facing OEL]

   (1-1) Set the PU serial number

   (Maintenance utility operation manual, Section 2.4.1.2, PU circuit board setting)
   SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

   - PU serial number is a 10-digit number which is basically the same as SAP serial number except that it has no the 2-digit revision number.
   - Set on the menu of [Section 2.4.1.1.2.1, PU serial number setting] of [Section 2.4.1.1.2 PU circuit board setting function].

- If you want to specify the PU serial number, please add a “0” (a normal-width zero) then input the 11-digit number. (Please notice that when read out, the number will be 10 digits.)
  As shown in the following image, on the menu of [PU serial number setting], eliminate the 2-digit revision number then add a normal-width zero to the 10-digit number and input it.

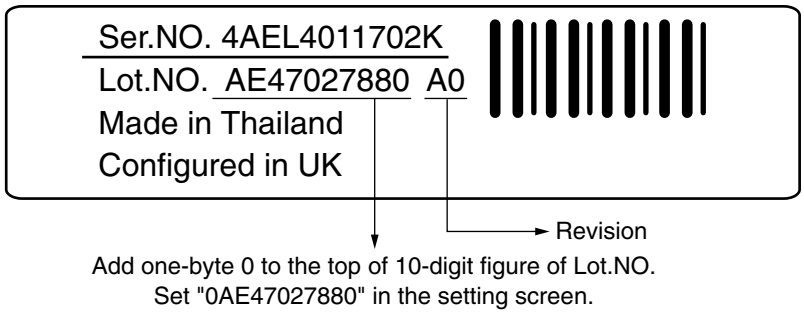

Ser.NO. 4AEL4011702K
Lot.NO. AE47027880 A0
Made in Thailand
Configured in UK
Revision
Add one-byte 0 to the top of 10-digit figure of Lot.NO.
Set "0AE47027880" in the setting screen.

Figure of Serial No. label image (labeled in UK Factory)

- PU serial number will be output to the Printer Serial Number column in the header of Status Page. For this reason, check of PU serial number is performed by printing Status Page.
- After the configuration in the UK factory, when facing OEL, the PU serial number is taken as Lot Number and shown in the Lot Number: column of the last line which is in the header of the Status Page.

(1-2) Set the CU serial number

SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

- CU serial number is given an original number which is within 12 digits in the UK factory.
- Please notice that if you set the CU serial number, the menu setting in CU will be reset (back to the default setting). (For reference, Maintenance utility operation manual)
- On the menu of [Section 2.4.1.1.4.3, Serial number information setting] of [Section 2.4.1.1.4 CU circuit board setting function], set the [Choose printer serial number] to [CU serial number] and [Output mode] to [Show both].
- If you want to specify the CU serial number, please input the 12-digit number. (When read out, it will be 12 digits, too.)

Figure of Serial No. label image (labeled in UK Factory)

- CU serial number is shown in the Printer Serial Number Column in the header of Status Page. Therefore, the confirmation of the CU serial number after the change can be done by printing the Status Page.
- The PU serial number is shown in the Lot Number: column of the last line which is in the header of the MenuMap.

(2) [When not facing OEL]

(2-1) Set the PU serial number

(Maintenance utility operation manual, Section 2.4.1.2, PU circuit board setting)
SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

- PU serial number is a 10-digit number which is basically the same as SAP serial number except that it has no the 2-digit revision number.
- Set on the menu of [Section 2.4.1.1.2.1, PU serial number setting] of [Section 2.4.1.1.2 PU circuit board setting function].
- If you want to specify the PU serial number, please add a “0” (a normal-width zero) then input the 11-digit number. (Please notice that when read out, the number will be 10 digits.)
  As shown in the following image, on the menu of [PU serial number setting], eliminate the 2-digit revision number then add a normal-width zero to the 10-digit number and input it.

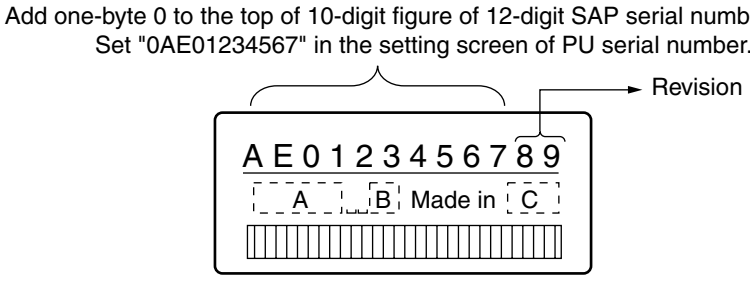

Add one-byte 0 to the top of 10-digit figure of 12-digit SAP serial number to set.
Set "0AE01234567" in the setting screen of PU serial number.
Revision
A E 0 1 2 3 4 5 6 7 8 9
A
B
Made in
C

Figure of Serial No. label image

- PU serial number will be output to the Printer Serial Number column in the header of Status Page. For this reason, check of PU serial number is performed by printing Status Page.
- After the configuration in the UK factory, when facing OEL, the PU serial number is taken as Lot Number and shown in the Lot Number: column of the last line which is in the header of the Status Page.

(2-2) Set the CU serial number

CU serial numbe setting is unnecessary When not facing OEL.

(3) To be applied for every model.

(3-1) Switch to shipping mode

When engine control circuit board has been exchanged, it will become factory mode. Therefore you can change it to Shipping Mode.

- Change to the menu of [Section 2.4.1.1.2.2 Factory/Shipping mode] in the [Section 2.4.1.1.2 PU circuit board setting function] of the maintenance utility.

(3-2) Set the desired market [Method of Confirmation: Status Page printing (C3400n/C3300n/C3450n)]

Because the default setting is OEL, the desired market must be set at shipment.

Note! This setting will be stored in the EEPROM of the BLA circuit board.

1. Maintenance circuit board: For international sales/ODA/OEL/APS facing maintenance circuit board, this setting is left as default at shipment.
2. Set the desired market: Set by PJL command or maintenance utility.
3. Explanation: PX732 is a common ROM both for domestic and international markets. When used in devices of different desired markets, it is necessary to set the desired market (the default is OEL facing)
   This setting will be stored in the EEPROM of the BLA circuit board.
   This setting in maintenance circuit board is left as default at shipment, when put in use, this setting will be executed. If the program version is changed, it will return to the initial value.

Note! Because of the EEPROM exchange (engine control circuit board), the life information of belt and ID, etc. has been cleared. Please notice that there may appear some errors in the life management until the following unit exchange is done.

Item	Description	Count Description
Fuser unit	Fuser unit life count	A value converted on a A4-size-paper basis from number of pages printed (prints) after installation of a new fuser unit
Belt unit	Belt unit life count	A value converted on a A4-size-paper basis from number of pages impressed (images) after installation of a new belt unit
Image drum unit - Black Image drum unit - Yellow Image drum unit - Magenta Image drum unit - Cyan	Respective life counts of image drum units	Values converted on a A4-size-paper basis from numbers of revolutions after installation of new image drum units
Total number of sheets fed	Printer life count	Total number of sheets fed
Pages - Black Pages - Yellow Pages - Magenta Pages - Cyan	Respective numbers of pages impressed (images) with image drums	Numbers of pages impressed (images) from installation of new image drum units.

5.5 About the manual setting of density correction

At shipment the density correction mode of printer is set to [Auto], if the user set it to [Manual] mode, the density in use will be changed, thus the density might appear strange.

Note! This should be done only when the printer is at idle state. Don't make this setting when warming up.

6. REGULAR MAINTENANCE

6.1 Recommended substitutes

It is recommended by our company that only heavy users should change the following parts. (If not changed, the printing quality cannot be guaranteed and failures may arise.)

Part Name	C3300	C3400/C3450
Friction Pad Assy	42088801	<--
Roller Assy. Hopping	43334901	<--

Note! 1. Consumables(image drum, toner cartridge, fuser and belt unit) are not included.
2. Power supply and main circuit board, etc. are not included.

The above mentioned regular parts exchange should be done by users.

6.2 Cleaning

If necessary, users should use wet cloths and minitype cleaner to clean the inside and outside of the machine.

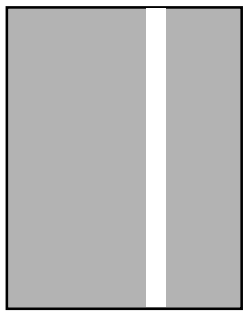
Note! Don't touch image drum terminals, LED lens array and LED head connector.

6.3 Cleaning LED lens array

If there appear white vertical lines or white stripe (white defection, light printing), please clean your LED lens array.

Note! LED lens array should only be cleaned by using LED head cleaner.
(LED head cleaner is provided with toner cartridge)

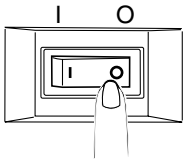
White lines, white stripes
(white defection, light printing)



CLEANING LED HEAD

If there appear line breaks or white lines, or the letters and characters are blurred, please clean your LED head.

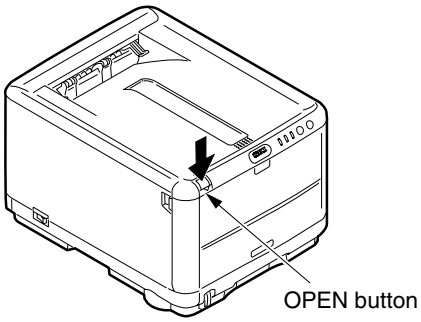
(1) Switch off the power supply.



(2) Press OPEN button and open the top cover.

⚠Caution	Personal injuries may occur.	

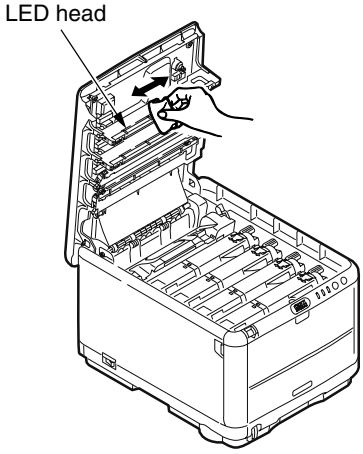
The fuser unit is extremely hot. Do not touch it.



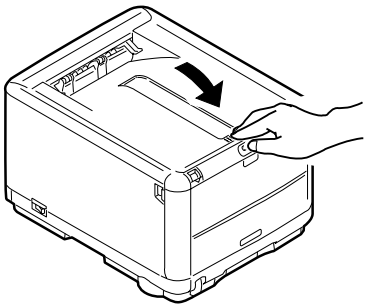
(3) Please use lens cleaner or soft tissue paper to wipe the lens surfaces (4 places) of LED head gently.

Note! Don't use solvent such as methyl alcohol or thinner since they may cause damage to the LED head.

Memo LED lens cleaner is provided with toner cartridge.



(4) Close the top cover.



6.4 Cleaning the pick-up roller

If there appear vertical lines on the printing side, please clean the pick-up roller.

Note! In order not to cause damage to the surface of roller, please use soft cloths to clean it.

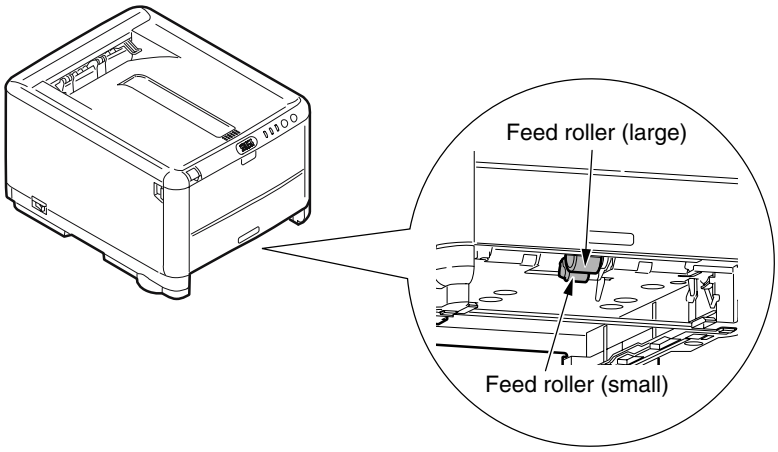
CLEANING PAPER FEEDING ROLLER AND PAD

If [391: paper jam] happens frequently, please clean your paper feeding roller and pad.

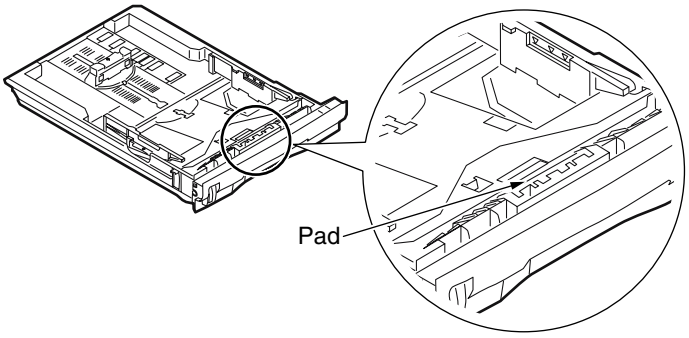
(1) Draw out the paper cassette.

(2) Get the cloths wet and wring it out. Then use the cloths or the LED lens cleaner to wipe paper feeding roller (large) and paper feeding roller (small).

Memo: LED lens cleaner is provided with toner cartridge.



(3) Get the cloths wet and wring it out. Then use the cloths or the LED lens cleaner to wipe the pad part of paper cassette.

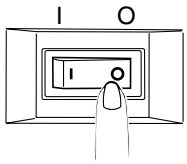


6.5 Cleaning the inside of the printer

CLEANING THE INSIDE OF THE PRINTER

According to printing patterns, the metal shaft between fuser and cyan image drum cartridge may be stained with toner. If this happens, please clean your printer.

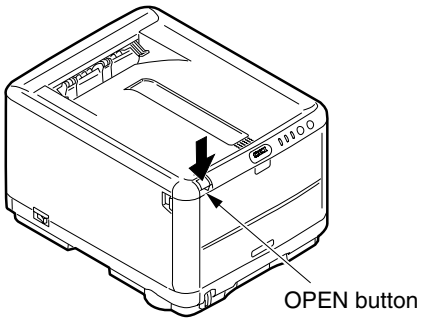
(1) Switch off the power supply.



(2) Press OPEN button and open the top cover.

⚠Caution	Personal injuries may occur.	

The fuser unit is extremely hot. Do not touch it.

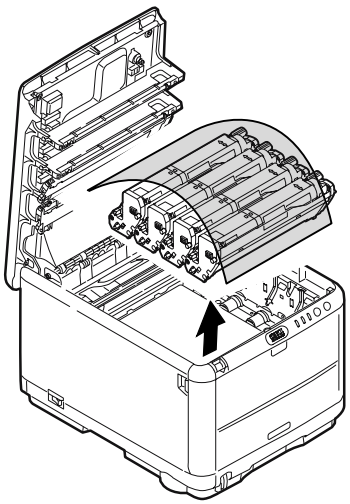


(3) Take out the image drum cartridge.

1. Take out the 4 image drum cartridges and put them on a flat surface.
2. Cover the 4 image drum cartridges with black paper.

Note! • The image drum (the green cylinder) is very easy to be damaged, please be careful when handling it.

• Don't put the image drum cartridges in direct sunlight or strong light (above1500 lux). And don't put them in indoor lighting condition for more than 5 minutes.

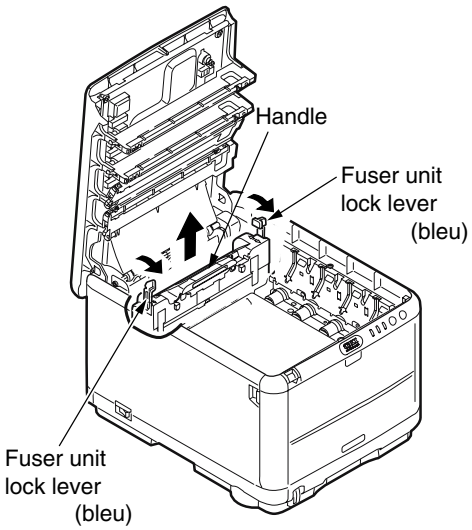


(4) Take out the fuser unit.

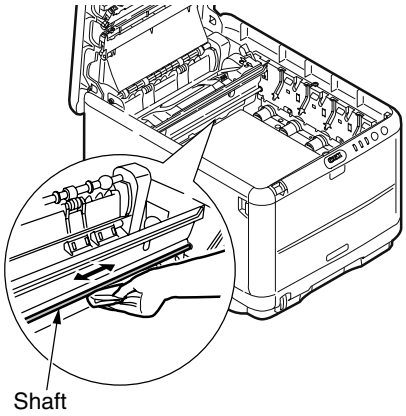
⚠Caution	Personal injuries may occur.	

The fuser unit is extremely hot. Be careful not to touch it. If the fuser unit is hot, do not try yourself to clear paper but wait until the fuser unit becomes cool.

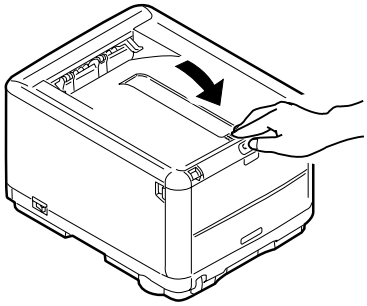
1. Pull the 2 blue lock levers of the fuser unit in the direction of arrows.
2. Hold the handle of the fuser unit and take it out.



(5) Use LED lens cleaner, soft cloths or tissue paper to wipe the metal shaft.



(6) Set the fuser unit.
For more detailed information, please refer to the Users' Manual Setup part, [Change the fuser unit].
(7) Gently put the 4 image drum cartridges back into your printer.
(8) Close the top cover.



7. TROUBLESHOOTING PROCEDURES

7.1 Precautions prior to repair

(1) Confirm the basic check items indicated in the User's Manual.

(2) Through hearing from the user, obtain information, as far in detail as possible, on the situation concerning the fault.

(3) Inspect the printer in a condition close to the actual situation in which the fault occurred.

7.2 Items to be checked prior to taking action on abnormal images

(1) Check to see if the printer is operated in an adequate environment.

(2) Check to see if the consumables (toner, drum cartridges) are replaced properly.

(3) Check to see if the right paper is used. See the paper specifications.

(4) Check to see if the drum cartridges are installed properly.

7.3 Precautions when taking action on abnormal images

(1) Do not bring your hand or any object in contact with the surface of the OPC drum.

(2) Do not expose the OPC drum to direct sun.

(3) Do not touch the fuser unit, which can be very hot.

(4) Do not expose the image drums to light for over five minutes at the room temperature.

7.4 Preparations for troubleshooting

(1) Display of status monitor

The breakdown situation of this machine is display in LED of the operator panel.

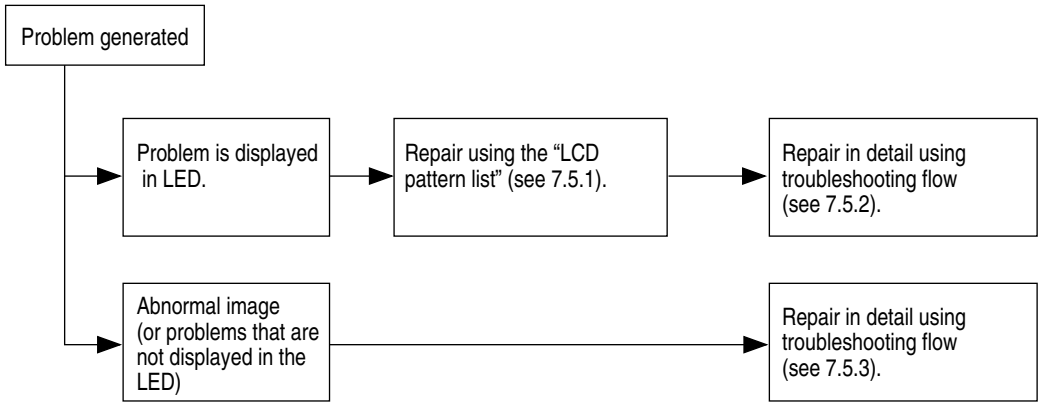
Do an appropriate trouble repair based on information displayed in LED.

(2) Notes

Even if the operator panel with C5900/C5800 LCD is connected with this device (C3400n/3300n/C3450n), the message similar to C5900/5800 is not output at all.

7.5 Troubleshooting method

If a trouble occurs in the printer, search for it by the following procedure:


Problem generated
Problem is displayed in LED.
Repair using the “LCD pattern list” (see 7.5.1).
Repair in detail using troubleshooting flow (see 7.5.2).
Abnormal image (or problems that are not displayed in the LED)
Repair in detail using troubleshooting flow (see 7.5.3).

7.5.1 LED Message List

(1) Status. Warning. Alarm

The Staus.Warning.Alarm list is recorded in table 7-1-1. The marks of the lighting pattern of LED mean as follows.

It describes in the table referring to the error code (numerical value of the treble) displayed in LCD display.

Marks		Marks
○	○	Irregularity
●	●	Turning off
●	●	Lighting 1
1	1	Blinking 1 (2S cycle)
2	2	Blinking 2 (500mS cycle)
3	3	Blinking 3 (120mS cycle)
4	-	Blinking 4 (4.5S for lighting,500mS for turning off)

Table 7-1-1 Status Warning Alarm List

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
1	Initializing	It displays, while not having determined the system display language immediately after turning on a power supply. If a display language is determined, it will change to the display of Priority 2.	●	●	●	-
2	Initializing	The controller side is initializing.	2	●	●	-
3	Initializing	Indicates that EEPROM of the controller side is being reset. The condition that EEPROM is reset includes the followings. • Changes of CU ROM (when disagreement of CU F/W version is detected) • Changes of destination channel • Compulsive initialization of EEPROM (System maintenance menu) • OEM set of PJL command	2	●	2	-
4	Initializing	RAM checking. The rate of checked capacity to the total capacity is displayed on the 2nd line.	2	●	●	-
5	Initializing	The network is in initializing.	2	2	●	-
7	Initializing	Displays that the content of Flash memory is being checked. It is displayed it when Resident/Option Flash memory not fomented are detected, or "MAINTENANCE MENU"-"FLASH FORMAT" of a system maintenance menu is performed. The function mentioned above is secret to users. Therefore, this status does not occur in a user environment.	2	2	●	-
8	Initializing	Displays that Flash memory is being formatted. It is displayed it when Resident/Option Flash memory not fomented are detected, or "MAINTENANCE MENU"-"FLASH FORMAT" of a system maintenance menu is performed. The function mentioned above is secret to users. Therefore, this status does not occur in a user environment.	2	●	2	-

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
18	Initializing	It is shown that PU firmware has booted in Loader mode. It displays, when PU firmware returns "00.00.00" as a response of Leisus command"VERSIONR 01 H" (version of PU firmware main part program) which CU firmware transmits at the time of initialization. If initialization is completed, it will change to the status of Priority 251. This status may occur also in a user environment. When it occurs, the maintenance by a maintenance member is required (equivalent to S/C).	●	●	●	-
19	Initializing	Displays that communication to PU firmware failed. This status may occur also in a user environment. When it occurs, the maintenance by a maintenance member is required (equivalent to S/C).	(T.B.D)	(T.B.D)	(T.B.D)	-
20	Initializing	Displays that normal Online mode starts. Data (Job) from an external portion is processed even though an error takes place after Online (ready) state once this mode starts. Displays Error or Warning on a panel. If a power supply is turned on pressing a <Enter>+<Back>+<Down> switch, it will enter into this mode.(PX732 <cover open>+<Cancel> switch) This function is secret to users. Therefore, this status does not occur in a user environment.	●	●	●	-
101	Normal	Shows on-line status.	●	○	○	10001
102	Normal	Shows off-line status. * Ready LED in off-line is always assumed to be Off.	1	○	○	10002
103	Normal	The status showing FILE SYSTEM (HDD/FLASH) is being accessed.	2	○	○	10993
104	Normal	Data receiving, process not started yet. Displayed mainly during PJL process without text print data or during job spooling.	2	○	○	10061
105	Normal	Data receiving or output processing	2	○	○	10023
106	Normal	Un-printed data remains in Buffer. Waiting for data to follow.	2	○	○	10096
107	Normal	A printer is printing.	2	○	○	10098
108	Normal	Printing Demo Pages	2	○	○	10017
110	Normal	Printing Menu Maps	2	○	○	10014
113	Normal	It is shown that a network setup is printing. If chosen by menu "INFORMATION MENU"-"NETWORK", printing of a network setup will be started.	2	○	○	10942
114	Normal	Collate printing. iii: The number of copy in printing. jjj: the total number of printing. When the total number of printing is 1, it is a normal printing display. In status of Priority=121 ~ 125, Display Priority is 39.	2	○	○	10099
115	Normal	Copy printing. kkk: The number of pages in printing. lll: The total number of printing. When the number of copy is 1, it is a normal printing display. In status of Priority=121 ~ 125, Display Priority is 39.	2	○	○	10099
116	Normal	Indicates that job cancellation has been instructed and data is being ignored until the job completion.	3	○	○	10007
117	Normal	Indicates if JAM occurs when Jam Recover is OFF, that job cancellation has been instructed and data is being ignored until the job completion.	3	○	○	10007

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
118	Normal	Indicates a job being cancelled due to no print permit. (Related to JobAccount) 1. A job received from a user who is denied printing. 2. A color job received from a user who is denied color printing.	3	○	○	10007
119	Normal	Indicates that a job is being cancelled because the printer area where the logs are stored has been used up and also "Cancel job" is specified as an operation at the time of Log Full. (Related to JobAccount)	3	○	○	10007
121	Normal	Warming up. In this case, Leisus I/F : STSENG bit #0 should be '0'.	2	○	○	10003
122	Normal	Indicates that printing has been suspended for a while due to high temperature of the drum, or the printer is in a wait state to cope with heat at the time of switching narrow paper to wide paper.	2	○	○	10963
123	Normal	A printer is in power save mode. Displayed in a combination of other message in the first line. LCD back light extincts in the energy saving mode and blinks after that mode. If the power is on during the energy saving mode, it lights up and extincts after 30 seconds. However, the energy saming mode remains. Also, it lights up in the priority 365 in shut down process.	4	○	○	10094
124	Normal	Executing Auto Color Adjusting	2	○	○	10058
125	Normal	Executing Auto Density Adjustment. Status code 10988 corresponds to density reading (Leisus - STSDEN #1), thereto 10994 corresponds to density adjusting (Leisus - STSDEN #0).	2	○	○	10994 10988
127	Normal	Downloading PU firmware (This is not a user-level error). This function is transparent to users. Therefore, This state does not occur in user environments. Text displayed on the printer in the state is difficult to view, the printer's display control being transferred to the printer's PU.	2	●	2	40988
202	Warning	Toner amount is low. Displayed in a combination of other message in the first line. In case of MENU "SYS CONFIG MENU"-"LOW TONER"=STOP, ATTENTION LED blinks and the printer shifts to OFF Line.(In PX732, the Alert LED lights) When an ONLINE switch is pushed, or when arbitrary errors occur and the error is canceled, an off-line state is canceled, and printing is continued until it is set to Toner Empty. Arbitrary errors are errors of Priority 301-361. "TONER LOW" status occurs when the power is on, the LED of ATTENTION in a case of MENU "SYS CONFIG MENU"-"LOW TONER"=STOP is blinked and go back to the off line after the initializing process.(In PX732, the Alert LED lights) It is possible to operate untill "TONER EMPTY" by pressing "ONLINE switch". Moreover, when set as ADMIN MENU "CONFIG MENU"-"NEARLIFE LED"=DISABLE, Attention LED is switched off. %COLOR% Y M C K	○ or 1	●	● or ●	10082 (Y) 10083 (M) 10084 (C) 10081 (K)

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
202.3	Warning	This warning is displayed at Cover Open/Close or Power OFF/ON after a waste-toner full error (Priority: 321.8) occurs. (Not occur for Black.) Displayed in a combination of other message in the first line. As long as this warning is being displayed, a waste toner full error occurs , the printer shifts to Offline and stops each time it has printed about 50 copies. %COLOR% Y M C	○	●	●	10959 (Y) 10960 (M) 10961 (C)
202.5	Warning	Indicates the toner cartridge is not for use in the printer. (RFID Licensed to 3rd party) %COLOR% Y M C K	○	●	●	10925 (Y) 10926 (M) 10927 (C) 10924 (K)
203	Warning	Indicates the toner cartridge is not for use in the printer. %COLOR% Y M C K	○	●	●	10955 (Y) 10956 (M) 10957 (C) 10954 (K)
204	Warning	Indicates the toner cartridge is not for use in the printer. %COLOR% Y M C K	○	●	●	10951 (Y) 10952 (M) 10953 (C) 10950 (K)
210	Warning	The life of the drum (warning). Displayed in a combination of other message in the first line. The printer stops at the point when it reaches the drum life (Shifts to error, OFF-LINE.) Moreover, when set as ADMIN MENU "CONFIG MENU"-"NEARLIFE LED"=DISABLE, Attention LED is switched off. %COLOR% Y M C K	○	●	●	10077 (Y) 10078 (M) 10079 (C) 10076 (K)
211	Warning	Notifies the fuser unit is near its life. Moreover, when set as ADMIN MENU "CONFIG MENU"-"NEARLIFE LED"=DISABLE, Attention LED is switched off.	○	●	●	10979
212	Warning	Notifies the belt unit is near its life. This is a warning; thus, printing will not stop. Moreover, when set as ADMIN MENU "CONFIG MENU"-"NEARLIFE LED"=DISABLE, Attention LED is switched off.	○	●	●	10978
214	Warning	Indicates the fuser is at the end of its life (notification). The printer displays this state when its cover is opened and closed, or it is powered on and off, after it causes a fuser life error. When placed in the (user-transparent) fuser life-end print continuation mode, the printer displays the state instead of a fuser life error.	○	●	●	10091

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
215	Warning	Indicates the transfer belt is at the end of its life (notification). The printer displays this state when its cover is opened and closed, or it is powered on and off, after it causes a transfer belt life error or a belt 'waste toner full' error. When placed in the (user-transparent) transfer belt life-end print continuation mode, the printer displays the state instead of a transfer belt life error.	○	●	●	10080
219	Warning	Indicates the printer is empty of toner. The printer displays this state (notification) when its cover is opened and closed, or it is powered on and off, after it causes a 'toner empty' error. When placed in the (user-transparent) toner-empty print continuation mode, the printer displays the state instead of a 'toner empty' error. %COLOR% Y M C K	○	●	●	10966 (Y) 10967 (M) 10968 (C) 10965 (K)
220	Warning	Notifies the toner cartridge is not installed. This is a warning only. %COLOR% Y M C K	○	●	●	10939 (Y) 10940 (M) 10941 (C) 10938 (K)
221	Warning	Notifies the life of the drum. This is a warning only. This appears when the cover was opened and closed just after the drum life error occurred. Also this occurred instead of the drum life error, if the "DRUM LIFE PRINT CONTINUE" setting was 'ON'. %COLOR% Y M C K	○	●	●	10970 (Y) 10971 (M) 10972 (C) 10969 (K)
222	Warning	Belt Reflex Check Error.PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	10053
223	Warning	Density Adjustment Shutter Error 2.Error that does not occur at user level.Displayed only in FactoryMode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	-
224	Warning	Density Adjustment Shutter Error 1.Error that does not occur at user level.Displayed only in FactoryMode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	-
225	Warning	Density Adjustment Color Calibration Error.Error that does not occur at user level.Displayed only in FactoryMode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	-
226	Warning	Density Adjustment Color Sensor Error.Error that does not occur at user level.Displayed only in FactoryMode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	-

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
227	Warning	Density Adjustment Black Calibration Error.Error that does not occur at user level.Displayed only in FactoryMode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	-
228	Warning	Density Adjustment Black Sensor Error.Error that does not occur at user level.Displayed only in FactoryMode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	-
229	Warning	Density Adjustment ID ERROR 2; smear due to ID failure. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% Y M C K	○	●	●	10976
230	Warning	Density Adjustment ID ERROR; LED out of focus is assumed. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% Y M C K	○	●	●	10975
231	Warning	When output of color registration sensor is below reference value. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.	○	●	●	10054
232	Warning	When a color registration error is detected with coarse adjustment, or with the main-scan line adjustment. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. n 2 = Yellow 3 = Magenta 4 = Cyan 5 =	○	●	●	10051
233	Warning	When a color registration error is detected with the fine control of registration adjustment, or with the sub-scan line adjustment. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. n 2 = Yellow 3 = Magenta 4 = Cyan 5 =	○	●	●	10052

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
236	Warning	The LED head calibration data is missing or invalid. Printing can be proceeded without calibrating light radiation. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% Y M C K	○	●	●	10945 (Y) 10946 (M) 10947 (C) 10944 (K)
238	Warning	%TRAY%: The tray is empty. Treated as Warning until printing to the empty tray is designated. In this case, Leisus I/F : corresponding bits of both LFTERR and LFTERR2 should be '0'. %TRAY% Tray1 Tray2 MP TRAY(Except PX732)	○	●	●	1601x x: Tray #
243	Warning	Disk-full is occurring. Because this is a temporary warning, it remains until the end of the job and disappears.	○	●	●	32002
244	Warning	An attempt to write in a read-only file was done. Because this is a temporary warning, it remains until the end of the job and disappears.	○	●	●	32026
245	Warning	Memory overflow was occurred in the collate copy. Stays displayed until the ONLINE key is pressed.	○	●	●	40994
248	Warning	Notifies users that jobs have been cancelled because they are not permitted for printing. (Related to JobAccount). Stays displayed until the ON LINE key is pressed.	○	●	●	10982
249	Warning	Notifies users that jobs have been cancelled because the buffer is full. (Related to JobAccount.)Stays displayed until the ON LINE key is pressed.	○	●	●	10982
250	Warning	A disk error is occurred, which is other than the file system fill or the disk write protected. Operation that does not involve a disk is available. nnn: An identifier to Error type (For details, see the overview chapter.) %FS_ERR% = 0 ... GENERAL ERROR = 1 ... VOLUME NOT AVAILABLE = 3 ... FILE NOT FOUND = 4 ... NO FREE FILE DESCRIPTORS = 5 ... INVALID NUMBER OF BYTES = 6 ... FILE ALREADY EXISTS = 7 ... ILLEGAL NAME = 8 ... CANT DEL ROOT = 9 ... NOT FILE = 10 ... NOT DIRECTORY = 11 ... NOT SAME VOLUME = 12 ... READ ONLY = 13 ... ROOT DIR FULL = 14 ... DIR NOT EMPTY = 15 ... BAD DISK = 16 ... NO LABEL = 17 ... INVALID PARAMETER = 18 ... NO CONTIG SPACE = 19 ... CANT CHANGE ROOT = 20 ... FD OBSOLETE = 21 ... DELETED = 22 ... NO BLOCK DEVICE = 23 ... BAD SEEK = 24 ... INTERNAL ERROR = 25 ... WRITE ONLY	○	●	●	32000 ~ 32026

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
251	Warning	PU flush error (Error occurs during the alteration of PU farm or it failed in the alteration in PU flush of such as LED Head information.) %PUFLASH% PU TRAY2 DUPLEX	○	●	●	40978
252	Warning	Invalid data was received. Press the On-line switch and eliminate the warning. Displayed when unsupported PDL command is received or a spool command is received without HDD. * GDI printer only	○	●	1	30114
300	Error (ONLINE)	Manual paper feed is required. Manually insert the paper shown by %MEDIA_SIZE%. The unit of paper size in Custom: The unit specified for MPTray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display. Paper size displays in Custom mode: "<width>x<length><unit>" ex.) 210x297mm 8.5x11.0inch The unit of paper size in Custom: The unit specified for MPTray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display. The PostScript back channel message is assigned as #1 of the table in 'PX723 PS BackChannel Message list for EFI' specification.	●	1	●	411yy yy: paper size
300.5	Error (ONLINE)	Paper feeding is reccomended because the print of back sides(odd number pages) is finished during the Manual Duplex print. %TRAY% Tray1 MANUAL	●	1	●	4083x x: Tray #
301	Error 461 462	The media type in the tray and the print data do not match. Load mmmmmmm/pppppp paper in ttttt tray (It takes a while until the status disappears after you have closed the tray and the lever lifted.) (ttttt : TrayName,mmmmmm : PaperName.pppppp : MediaTypeName) Error 461 : Tray1 Error 462 : Tray2 Paper size displays in Custom mode: "<width>x<length><unit>" ex.) 210x297MM 8.5x11.0INCH The unit of paper size in Custom: The unit specified for MPTray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display. As a user pressed ONLINE key, the printer could ignore this error at the just printing job.	1	1	●	482yy 483yy
303	Error 461 462	The size of paper or media type in the tray does not match the print data. Load paper in tray (It takes a while until the status disappears after you have closed the tray and the lever lifted.) Error 461 : Tray1 Error 462 : Tray2 The paper size displaying form of the custom mode is the same as above. As a user pressed ONLINE key, the printer could ignore this error at the just printing job.	1	1	●	482yy 483yy

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
311	Error (ONLINE)	This appears during the NIC configuration data is storing into the flash memory, as the setting was changed	2	●	2	-
312	Error (ONLINE)	This appears when the NIC initialization is occurred, as the setting was changed.	2	2	●	30993
313	Error 491 492	Printing request is issued to an empty tray. Load paper. (It takes a while until the status disappears after you have closed the tray and the lever lifted.) Error 491 : Tray1 Error 492 : Tray2 The paper size displaying form of the custom mode is the same as above. In this state, Leisus I/F : corresponding bits of both LFTERR and LFTERR2 should be '0' (except MPTray).	●	2	●	472yy 473yy
321	Error 420	Memory capacity overflows due to the following reason. Press ON-LINE switch so that it continues. Install expansion RAM or decrease the data amount. - Too much print data in a page. - Too much Macro data. - Too much DLL data - After frame buffer compression, over flow occurred.	1	●	1	30097
321.8	Error 414 415 416	Indicates that a waste toner box represented by %COLOR% has become full and needs to be replaced. Error 414 : Y Error 415 : M Error 416 : C (Does not occur for K.) Warning status takes effect at Cover Open/Close and printing of about 50 copies becomes available.	●	●	2	40956 (Y) 40957 (M) 40958 (C)
322	Error 410 411 412 413	Toner ends. Error 410 : Y Error 411 : M Error 412 : C Error 413 : K Warning status takes effect at Cover Open/Close.	●	●	2	40029 (Y) 40030 (M) 40031 (C) 40028 (K)
323	Error 554 555 556 557	Indicates the toner cartridge is not for use in the printer. The printer recovers from the error after replacement of the toner cartridge with a toner cartridge for the printer. Error 554 : Y Error 555 : M Error 556 : C Error 557 : K	●	●	2	40948 (Y) 40949 (M) 40950 (C) 40947 (K)
324	Error 614 615 616 617	Indicates the toner cartridge is not for use in the printer. The printer recovers from the error after replacement of the toner cartridge with a toner cartridge for the printer. Error 614 : Y Error 615 : M Error 616 : C Error 617 : K	●	●	2	40911 (Y) 40912 (M) 40913 (C) 40910 (K)

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
325	Error 620 621 622 623	Indicates the toner cartridge is not for use in the printer. The printer recovers from the error after replacement of the toner cartridge with a toner cartridge for the printer. Error 620 : Y Error 621 : M Error 622 : C Error 623 : K	●	●	2	40907 (Y) 40908 (M) 40909 (C) 40906 (K)
326	Error 550 551 552 553	Indicates the toner cartridge is not for use in the printer. The printer recovers from the error after replacement of the toner cartridge with a toner cartridge for the printer. Error 550 : Y Error 551 : M Error 552 : C Error 553 : K	●	●	2	40944 (Y) 40945 (M) 40946 (C) 40943 (K)
327	Error 610 611 612 613	The toner cartridge is not installed. Error 610 : Y Error 611 : M Error 612 : C Error 613 : K	●	●	2	40903 (Y) 40904 (M) 40905 (C) 40902 (K)
328	Error 540 541 542 543	Something is wrong with the toner sensor. This status is indicated in Shipping Mode only. If the same error is detected in FACTORY Mode, it is indicated as service call of 163. Error 540 : Y Error 541 : M Error 542 : C Error 543 : K	●	●	2	40960 (Y) 40961 (M) 40962 (C) 40959 (K)
331	Error 400	Inappropriate size paper was fed from a tray. Check the paper in the tray or check for Multiple-feed. Open and close the cover to perform recovery printing, and continue. In this state, Leisus I/F : OPJAM bit #7 should be '0'.	●	2	2	30034
339	Error 390	Paper jam occurred during paper feeding from tray. Error 390 : MP Tray	●	2	2	40077
340	Error 391 392	Paper jam occurred during paper feeding from tray. Error 391 : Tray1 Error 392 : Tray2	●	2	2	40077
341	Error 380	Jam has occurred in paper path. Error 380 : Feed	●	2	2	40982
342	Error 381 382 383 385 389	Jam has occurred in paper path. Error 381 : Transport Error 382 : Exit Error 383 : Duplex Entry(Except PX732) Error 385 : Around Fuser Unit Error 389 : Printing Page Lost	●	2	2	40078 40079 40051 40820 40819

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
348	Error 350 351 352 353	The life of the image drum (Alarm) Error 350 : Y Error 351 : M Error 352 : C Error 353 : K Warning status takes effect at Cover Open/Close.	●	●	②	40997 (Y) 40998 (M) 40999 (C) 40996 (K)
349	Error 560 561 562 563	The toner empty error is occurred after the image drum reached its life. Error 560 : Y Error 561 : M Error 562 : C Error 563 : K This is displayed until a user exchanges the image drum.	●	●	②	40937 (Y) 40938 (M) 40939 (C) 40936 (K)
350	Error 354	Notifies the fuser has reached its life. This is the error displayed based on the counter to indicate that the fuser has reached its life, and printing will stop. Warning status takes effect at Cover Open/Close. This error will occur on some user setting mode.	●	●	②	40971
351	Error 355	Notifies the transfer belt has reached its life. This is the error displayed based on the counter to indicate that the belt has reached its life, and printing will stop. Warning status takes effect at Cover Open/Close.	●	●	②	40970
352	Error 356	Indicates waste toner full. Warning status takes effect only once at Cover Open/Close, and the error occurs again when about 500 copies have been printed.	●	●	②	40964
355	Error 544 545 546 547	Shows that the toner cartridge lever has not been locked. Error 544 : Y Error 545 : M Error 546 : C Error 547 : K	●	●	②	40915 (Y) 40916 (M) 40917 (C) 40914 (K)
356	Error 340 341 342 343	The image drum is not correctly installed. Error 340 : Y Error 341 : M Error 342 : C Error 343 : K	●	●	②	40034 (Y) 40035 (M) 40036 (C) 40033 (K)
357	Error 320	The fuser unit is not correctly installed.	●	●	②	40992
358	Error 330	The belt unit is not correctly installed.	●	●	②	40037
360	Error 310 311	The cover is open. Error 310 : Top Cover Error 311 : Front Cover	●	●	②	40021 40991
363	Error 300	A network error is occurring.	●	●	③	30027
364	Error	Rebooting of the controller unit. %CODE% is a decimal value (one digit) and represents the reason to reboot. = 0 ... Reboot due to a reason other than the followings. = 1 ... Reboot due to PJLCommand. = 2 ... Reboot in accordance with a menu change. = 3 ... Reboot due to quit operator of PostScript Language. = 4 ... reboot by Network Utility (including Web).	②	②	●	-
365	Error	It is shown that a printer is shutting down. Shutdown processing is started with which press BACK button 4 seconds or more after the completion of initialization processing of a printer.	●	●	●	-

Priority	Level	Function	LED Blinking Pattern			PL
			ONLINE	PAPER	ALERT	Status Code
365.5	Error	Indicates that the printer has completed shutting down. In PX732LED, it turns it off in order of Alert, Paper, and Power at one cycle of the second.	● or ●	● or ●	● or ●	-
366	Error	It is shown that the printer completed shutdown processing. (The backlight of LCD puts out the light)	●	●	4	-
401	Fatal 126	A dew is formed. (Reserved; T.B.D.) *Fatal Error is not available in national language.	3	●	3	-
401	Fatal <nnn>	A fatal error occurred. For more information, see attached 'Fatal Errors List'. *Fatal Error is not available in national language.	3	●	3	-
401	Fatal <nnn>	A fatal error occurred. For more information, see "Service Calls List." *Fatal Error is not available in national language.	3	3	3	-
401	Fatal 096 231 128 168 169	A fatal error occurred. '*' specifies the detailed error cause. *Fatal Error is not available in national language.	3	3	3	-
401	Fatal 002~011 F0C F0D FFE FFF	A fatal error occurred. For more information, see "Service Calls List." 'nnnnnnnn' specifies the detailed error cause. *Fatal Error is not available in national language.	3	●	3	-
401	Fatal 209	Downloading Media Table to PU has failed. (Related to CustomMediaType.) *Fatal Error is not available in national language.	3	●	3	-

(2) Service Call Error

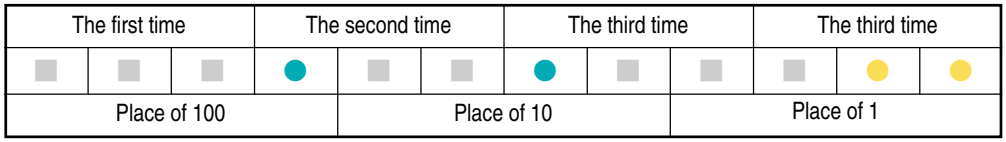
When the service call error occurs, all LED of Power, Paper, and Alarm LED is high-speed blinked at the same time at 120mS intervals. Under such a condition, it comes into "Error code display mode" when ONLINE switch and the CANCEL switch are pressed at the same time for more than five seconds. In this mode, the error code (decimal number of 3-digit) is expressed by 12 bits (LED3 piece _ four times).

"Error code display mode" is ended if ONLINE switch is pressed for five times, and it returns to the state of the LED high speed blinking. Moreover, even if the switch is not pressed for more than 20 seconds, "Error code display mode" would be ended. ...

All LED is turned off immediately after pressing ONLINE switch (200mS), and under the continuous condition same patterns may also recognize the switch-pressing.

When the error occurs, one example of the LED display pattern is shown as follows.

Error code display pattern of 123



Error code display pattern of 807

Table 7-1-2 service call error list (1/6)

Display	Cause	Details of error		Method
Service call 002: Error 005: Error	CPU Excepption	 Is the error message displayed again?	 Yes No	If the RAM DIMM is mounted, remove it and turn the power supply off/ON. Replace BLA board Remount RAM DIMM Replace RAMDIMM
Service call 030: Error	CU RAM Check Error	Is the error message displayed again?	Yes	Power supply OFF/ON Replace BLA board
Service call 031: Error	CU Optical RAM Check Error	Is RAM DIMM mounted normally? Does it restore by exchanging RAM DIMM?	No Yes No	Remount RAM DIMM Replace RAMDIMM Replace BLA board
Service call 040: Error	CU EEPROM Error	Is the error message displayed again?	Yes	Power supply OFF/ON Replace BLA board
Service call 041:Error	CU Flash Error Flash ROM Error on the CU board	Is the error message displayed again?	Yes	Power supply OFF/ON Replace BLA board
Service call 042: Error 043: Error	Flash File System Error	It failed to the access to CU Flash ROM that is attached to the BLA board directly.		The compulsive initialization of Flash is done. (Because NIC-F/W is deleted, please be careful to it. After initialization, it is necessary to write NIC-F/W by the maintenance utility). FLASH FORMAT is executed by using the maintenance utility. If the symptom doesn't change, replace the BLA board.
Service call 072: Error	Engine I/F Error I/F Error between PU and CU			Replace BLA board
Service call 073: Error	Video Error When the image data sprads, defect is detected. (Incorrect data receive)	Does the error recur?	Yes	Change the PC to high spec or lower the resolution, and then print again. Replace BLA board
Service call 074: Error 075: Error	Video Error When the image data spreads, defect is detected.			Replace BLA board
Service call 081: Error	Difference between version of CU firm and EEPROM	Does the error recur?	Yes	Do EEPROM Initialization. (Turn on the power supply by Cover-open & pressing ONLINE switch & pressing CANCEL switch). Because the Mac address will disappear with this initialization, please reset Mac address by using the maintenance utility. Replace BLA board
Service call 104: Error	Engine EEPROM mounting check is OK with turning on the power supply, after that, lead/light error is detected	Does the error recur?	Yes	Power supply OFF/ON Replace BLA board

Table 7-1-2 service call error list (2/6)

Display	Cause	Details of error		Method
Service call 105: Error	Engine EEPROM mounting check error when the power supply is turned on.	Does the error recur?	Yes	Power supply OFF/ON Replace BLA board
Service call 106: Error	The engine control logic is abnormal	Does the error recur?	Yes	Power supply OFF/ON Replace BLA board
Service call 121: Error	High-voltage power supply I/F error	Is the cable between PU board ant the high-voltage power supply unit correctly connected? Isn't there defective contact point?	No Yes No	Reconnect correctly. Check the defective contact point of high-voltage system. Replace the high voltage power supply.
Service call 123: Error	Environmental humidity abnormal/ humidity sensor disconnection	Is the cable between the PU board and the high-voltage power supply unit correctly connected?	No Yes	Reconnect correctly. Replace the high-voltage power supply.
Service call 124: Error	Environmental temperature abnormality	Does the error recur?	Yes	Power supply OFF/ON Replace control panel board (PRP)
Service call 126: Error	The dewy of the device is detected	Dew condensation occurs easily after the device is carried in from outside. After leaving it at room temperature for 2 hours to half a day, turn on the power again. Does the error recur?	Yes	Turn on the power again after leaving the device for hours. Replace the high-voltage power supply.
Service call 127: Error	Fixed cooling fan error	Is the connector connection of the fan normal? Does the error recur?	No Yes	Reconnect normally Replace the fan motor
Service call 131: Error 134: Error	LED head detection abnormality (131=Y, 132=M, 133=C, 134=K)	Is FFC connected to HEAD and CU board correctly? Is there any wire breakage or peel-off of the covering along the cord? Is the LED head fuse blown out?	Yes No Yes No Yes No	Check for any wire breakage or peel-off of the covering along the cord Redo the connection prolerly. Replace the FFC. Check the LED head fuse on CU board. Check the LED head fuse on CU board. Replace the CU board. Replace the LED head unit.
Service call 140: Error 142: Error	ID Up/Down position detection error	Does it has anything trouble with the detaching/attaching of ID unit? Does the error recur?	Yes No Yes	Reinstall the ID unit. Turn on the power supply again Replace the high voltage power supply.
Service call 150: Error 153: Error	Defective fuse cutting of ID unit	Is the ID unit installed correctly? Does the error recur? Does it restore by exchanging PRE board?	No Yes Yes Yes No	Install the ID unit again Turn on the power supply again Check the spring contacts. See item 7.5.2.(14). Replace PRE board after check the cable connection of PRE board - BLA board Replace BLA board

Table 7-1-2 service call error list (3/6)

Display	Cause	Details of error		Method
Service call 154: Error	Defective fuse cutting of belt unit	Is the belt unit installed correctly? Does the error recur?	No Yes Yes Yes	Reinstall the belt unit. Turn on the power supply again Check the spring contacts. See item 7.5.2.(14). Replace BLA board after check cable connection.
Service call 155: Error	Defective fuse cutting of fuser	Is the fuser installed correctly? Does the error recur?	No Yes Yes Yes	Reinstall the fuser after its connection connector is cleaned Turn on the power supply again Check the spring contacts. See item 7.5.2.(14). Replace BLA board after check the cable connection.
Service call 160: Error 163: Error	Defective toner sensor detection It does not occur during shipping setting	Is the toner cartridge installed? Is the lock level of toner set? Does the error recur? Does the error recur? Does the error recur?	No No Yes Yes Yes	Install a toner cartridge. Turn the lock lever of toner cartridge to the fixed position. Remove the right side cover, take measures to prevent the right side of the device from being exposed to ambient light, and confirm that the toner sensor is lighted during initialization of the device. Reconfirm it after replacing the toner sensor Assy. Replace the BLA board.
Service call 167: Error	Thermistor Slope Error	Is the error message displayed? Does the error recur?	Yes Yes	Turn on the power supply again Turn on the power supply again after storage for 30 minutes.
Service call 168: Error	Compensation Thermistor Error	Is the error message displayed? Does the error recur?	Yes Yes	Turn on the power supply again Turn on the power supply again after storage for 30 minutes. Note)
Service call 169: Error	Upper Side Thermistor Error	Is the error message displayed? Does the error recur?	Yes Yes	Turn on the power supply again Turn on the power supply again after storage for 30 minutes.
Service call 170: Error 171: Error	Thermistor Short circuit / Open circuit of the fuser is detected	 Does the error recur?	 Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board. See Note.
Service call 172: Error 173: Error	Thermistor Temperature abnormality (high or low) of the fuser is detected	 Does the error recur?	 Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board.
Service call 174: Error	The short circuit of the backup roller Thermistor is detected. (For the high temperature)	 Does the error recur?	 Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board.

Table 7-1-2 service call error list (4/6)

Display	Cause	Details of error		Method
Service call 175: Error	The open circuit of the backup roller Thermistor is detected. (For the low temperature)	Does the error recur?	Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board. See Note.
Service call 176: Error 177: Error	Temperature abnormality (high or low) of the backup Laura thermistor was detected	Does it become an error again?	Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board.
Service call 190: Error	System memory overflow	Does the error recur?	Yes	Turn on the power supply again. Install an additional RAM DIMM.
Service call 200: Error 202: Error	PU Firmware Download Error	Error occurs when the PU firmware is rewritten		After the power supply is turned on again, try to download again. (Because this processing is not performed during usual operation, it does not occur.)
Service call 209: Down Load Error	Custom Media Type table download failure	Failed in downloarding Custom Media Type Table		After the power supply is turned on again, try to download again. (Because this processing is not performed during usual operation, it does not occur.)
Service call 203: Error 204: Error 207: Error 208: Error 213: Error 214: Error F0C: Error FFE: Error FFF: Error	CU program trouble (203~214 are not generated in usual operation)	Incorrect processing is performed by the CU program. Does the error recur?		Turn on the power supply again. Replace BLA board.
Service call 230: Error	RFID Reader not Installed	RFID Reader Device error Does the error recur?	Yes Yes	Check the connection of the LUM board (RFID reader/writer board). Replace the LUM board (RFID reader/writer board). Replace the BLA board.
Service call 231: Error	RFID Reader I/F Error	An interface error was detected with the RFID reader device. 01: communication error between the RFID reader and the engine PCB. 02: the transceiver circuit error of the RFID reader. 03: communication error between the RFID reader and the toner cartridge. 04: the toner cartridge detection error (more than 4).		01: Same as Error 230. 02: Replace the LUM board (RFID reader/writer board). 03: Check the connection of the antenna cable. 04: Check if the number of toner cartridge is correct.
Service call 240: Error	Engine Program Memory Error	240: Flash Memory Hardware Error		If the error occurs again after re-turning on the power supply, replace the board of the unit.

Table 7-1-2 service call error list (5/6)

Display	Cause	Details of error		Method
Service call 905: Error 906: Error	Short circuit error of the Frame thermistor (thermistor defect) is detected	Does the error recur?	Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board.
Service call 907: Error	High temperature error of the frame thermistor (over 150)is detected	Does the error recur?	Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board.
Service call 908: Error	Low temperature error of the Frame thermistor (lower than [environment temperature - 10]) is detected	Does the error recur?	Yes	Check the cable connection between the ZAK board and BLA board and turn on the power again. Replace the fuser unit. Replace the BLA board.
923: Error	Image Drum Lock Error	The ID motor does not rotate correctly. Is the error message displayed when the power is turned on again?	 Yes Yes	Check if the ID unit is set correctly. Replace the ID unit. Replace the ID motor.
Service call 980: Error	Media coiling error to the fuser	Media is coiled to the fuser		Turn off the power supply Replace the fuser
Service call 981: Error	Difference between PU model version detected and CU model version detected	Does the error recur?	Yes	Turn off/on the power supply Replace the BLA board
	High-voltage power supply I/F error when initializing	Is the cable between PU board and the high-voltage power supply unit correctly connected? Isn't there defective contact point?	No Yes No	Reconnect correctly. Check the defective contact point of high-voltage system. Replace the high voltage power supply.
	PU board SRAM error	Does the error recur?	Yes	Turn on the power supply again Replace the BLA board
	CRC check error of PU download data	After PU data is downloaded (PU fireware, custom media data, head correction data), CRC check error is detected.		After the power supply is turned on again, try to download again. (Because this processing is not performed during usual operation, it does not occur.)
	PU board Flash ROM hash check error	Does the error recur?	Yes	Turn on the power supply again Replace the BLA board
	PU board Flash ROM writing error	Does the error recur?	Yes	After the power supply is turned on again, try to download again. (Because this processing is not performed during usual operation, it does not occur.) Replace the BLA board
	The communication error with ASIC on the CU board is detected			Replace the BLA board

Table 7-1-2 service call error list (6/6)

Display	Cause	Details of error		Method
Service call F0C: Error	System Call Exception			Send the hard copy of StatusPage to a related department when the power supply OFF/ON is normal.
Service call FFF: Error	Bus controller ROM Write protection			Send the hard copy of StatusPage to a related department when the power supply OFF/ON is normal.
	PU fireware rash	Does the error recur?	Yes	Turn on the power supply again Replace the BLA board
	PU fireware rash	Does the error recur?	Yes	Turn on the power supply again Replace the BLA board
	PU fireware rash	Does the error recur?	Yes	Turn on the power supply again Replace the BLA board
	I/F error between PU and CU	Is the BLA board correctly mounted?	No Yes	Remount correctly Replace the BLA board

Note! Because service call 168 error ,171 error and 175 error may occur when the temperature of printer is below zero, please restart the printer after making it warm when the temperature of printer is low.

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Note! When replacing the main board (BLA PCB), please read the content on the EEPROM chip of the old board and copy it to the new board. (Refer to 5.4.1 when exchange main board)

7.5.2.(1) LCD Display Malfunction

(1-1) Nothing is displayed in LCD

Confirmation Items		Confirmation Tasks	Action at NG
(1-1-1) Fuse confirmation			
	F4 (fuse) of main board (BLA PCB)	Confirm whether F4 is cut.	Exchange BLAPCB.
(1-1-2) Check the connection			
	Connection of low-voltage power supply unit and main board (BLA PCB).	Confirm whether the cord is normally connected from a low-voltage power supply to the POW connector of main board (BLA PCB) Check whether incompletely connection and oblique insertion of connector exist.	Try to plug in the code normally.
	Connection cable between low-voltage power supply unit and main board (BLA PCB).	Confirm whether it is disconnected. Confirm whether the coating peeling off exists. Check whether Cord ASSY defect exists such as the wire pulled out.	Replace it with normal low-voltage power supply unit.
	Connection of main board (BLA PCB) and operation panel board (WHIPCB).	Confirm whether 7-pole FFC is normally connected with the OP732 connector of main board (BLA PCB). Confirm whether 7-pole FFC is normally connected with the CN1 connector of operation panel board (WHI PCB). Check whether incompletely connection and oblique insertion of connector exist.	Try to insert the cord normally.
	FFC connects between main board (BLA PCB) and Operation panel board (WHIPCB).	Disconnection check by the tester. Confirm the coating peeling off by visual inspection.	Replace it with normal FFC.
(1-1-3) Peripheral check of power supply			
	AC power supply supplied to the printer.	Confirm the supplied voltage of the AC power supply.	Supply the AC power supply.
	Voltage setting of low-voltage supply unit (110V/ 230V).	Measurement of supplied AC voltage. Confirm the power supply setting of the equipment used. (Confirm the short plug of the low-voltage supply setting switch. Short plug Have/None=100V /230V)	Adjust the low-voltage power supply setting.
	The 5V power supply supplied to the main board (BLA PCB).	Confirm the 5V power supply by 5 and 6pin of POW connector of the PU board (BLA PCB).	Exchange the Low-voltage power supply.
	The 3.3V power supply supplied to the Operation panel board (WHI PCB).	Confirm the 3.3V power supply by 1pin of CN1 connector of Operation panel board (WHI PCB).	Exchange BLAPCB.
(1-1-4) Short circuit confirmation of power supply			
	The 5V power supply and 24V power supply supplied to the main board (BLA PCB)	Confirm whether short circuit exists by the POW connector of the main board. If 3, 4pin: 24V 5, 6pin: 5V 7, 8, 9pin:0VL 1, 2 pin:0VP are measured, the position of short circuit can be located. Pulling out the cords connected with the main board (BLA PCB) one by one, and then fix the position of short-circuit.	Exchange the short parts.

7.5.2.(2) Irregular Operation of the device after turning on the power

(2-1) No operation

Confirmation Items		Confirmation Tasks	Action at NG
(2-1-1) Peripheral check of power supply			
	AC power supply supplied to the printer.	Confirm the supplied voltage of the AC power supply.	Supply the AC power supply.
	Voltage setting of low-voltage power supply unit (/230V 100V).	Measurement of the supplied AC voltage. Confirm the power supply setting of the equipment used. (Confirm the short plug of low-voltage supply setting switch. Short plug Have/None=100V /230)	Adjust the low-voltage power supply setting.
	The 5V power supply and 24V power supply supplied to the main board (BLA PCB).	Confirm the power supply by the POW connector of the main board (BLA PCB). 3, 4pin: 24V 5, 6pin: 5V 7, 8, 9pin: 0VL 1, 2 pin: 0VP	Exchange low-voltage power supply.

(2-2) Abnormal sound

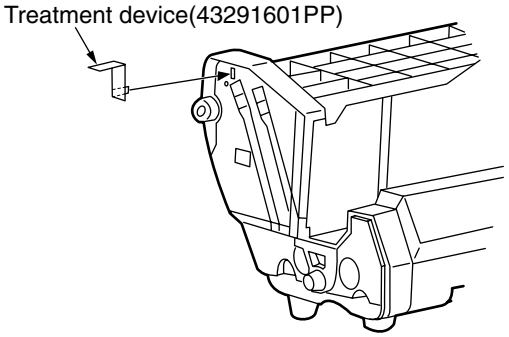
Confirmation Items		Confirmation Tasks	Action at NG
(2-2-1) Motor step out confirmation (driver abnormality)			
	Operation condition of each motor	Use the motor clutch test function of the maintenance utility to confirm whether the operation of each motor is normal or abnormal. Confirm whether load exists. When it is in abnormal state, check whether beep sounds.	Exchange main board (BLAPCB).
	Motor cord condition	Check the layout condition of each motor. By visual inspection and tester, perform short-circuit check. Remove the motor cord from board side, and check the resistance value between each PIN and FG of removed cord side.	Exchange the motor cord, and reassemble normally.
(2-2-2) Motor step out confirmation (load abnormality of Consumable)			
	Operation condition of each motor.	Use the motor clutch test function of the maintenance utility to confirm whether the operation of each motor is normal or abnormal. Confirm whether load exists. When it is in abnormal state, check whether beep sounds.	Exchange each consumable. When trying to use a new belt and fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.) When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
(2-2-3) Gear-skip confirmation (load abnormality of Consumable)			
	Operation condition of each motor.	Use the motor clutch test function of the maintenance utility to confirm whether the operation of each motor is normal or abnormal. Confirm whether load exists. When it is in abnormal state, check whether crackling sound sounds.	Exchange each consumable. When trying to use a new belt and fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.) When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
	Set condition of each consumable	By visual inspection confirm whether the gear of each consumable is set in position.	Exchange or correct necessary mechanical parts.
(2-2-4) Layout condition of cord			
	Layout of cord around cooling FAN	Check whether layout of cord around cooling fan is poor and the cable may touch the fan blade. When it is in abnormal state, check whether rattly sounds.	Correct the layout of cord.

(2-3) Abnormal odor

Confirmation Items		Confirmation Tasks	Action at NG
(2-3-1) Locate the position with abnormal odor occurred.			
	Fuser unit	Take out the fuser and confirm the odor.	Perform (2-3-2).
	Low-voltage power supply unit	Take out the low-voltage power supply unit and confirm the odor.	Exchange low-voltage power supply unit
(2-3-2) Check the condition of fuser.			
	Life count of fuser	Confirm the life count of the fuser by the maintenance utility.	It may have abnormal smell around a new printer.
	Foreign confirmation of fuser	Confirm whether the fuser is jammed with foreign body such as paper inside.	Remove the foreign body.

(2-4) Slow starting time

Confirmation Items		Confirmation Tasks	Action at NG
(2-4-1) Check a fuser unit			
	Halogen lamp	Confirm the wattage of the halogen lamp mounted in the fuser.	Exchange for wattage parts of the rated voltage.
(2-4-2) Check optional parts			
	Expansion memory	Reset the optional parts (expansion memory) and recheck the operation.	Exchange optional parts

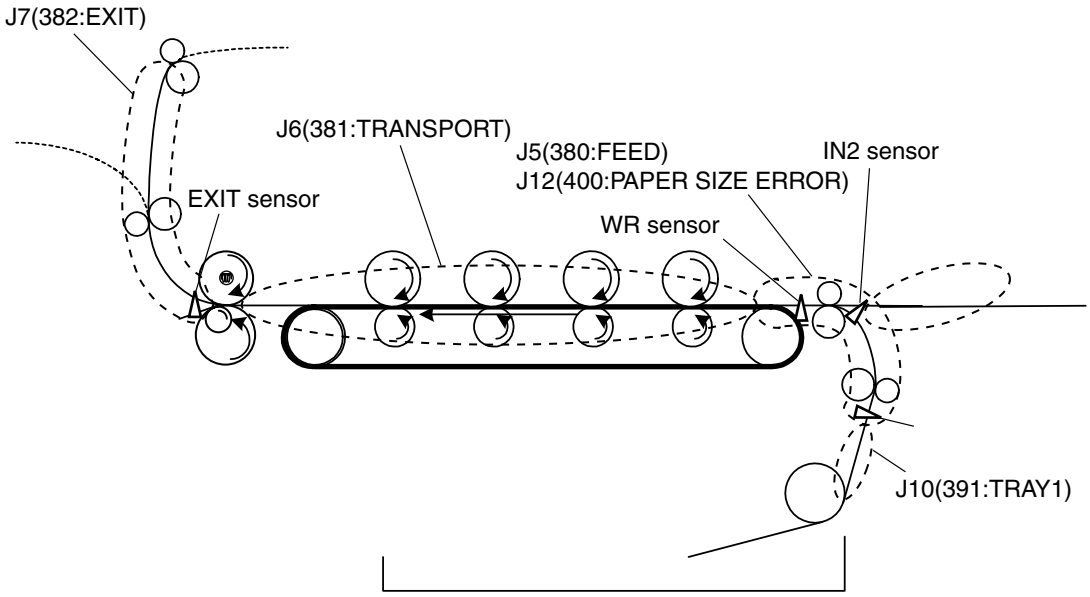


When insert the jig, please insert it into the gap of the phosphor bronze terminal that can be seen inside the ID unit side cover.

(3) Error number and jam location at paper jam

Error No.	Name	Reference	Corresponding sensor	Jam release method
380	Feed (front cover jam)	J5	IN2, WR	Jam release method ①
381	Transport (paper feed jam)	J6	IN1, IN2, WR, EXIT	Jam release method ②
382	Exit (paper reject jam)	J7	EXIT	Jam release method ②
391	Tray1 (paper feed jam)	J10	IN1	Jam release method ①, ④
400	Paper size error (paper size error)	J12	IN1	Jam release method ①

Diagram of jam location



Jam Release Method ①

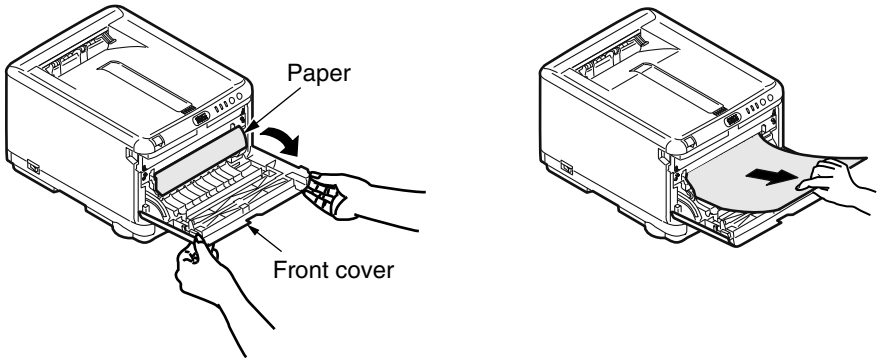
Remove the jammed paper.

Front Cover Part

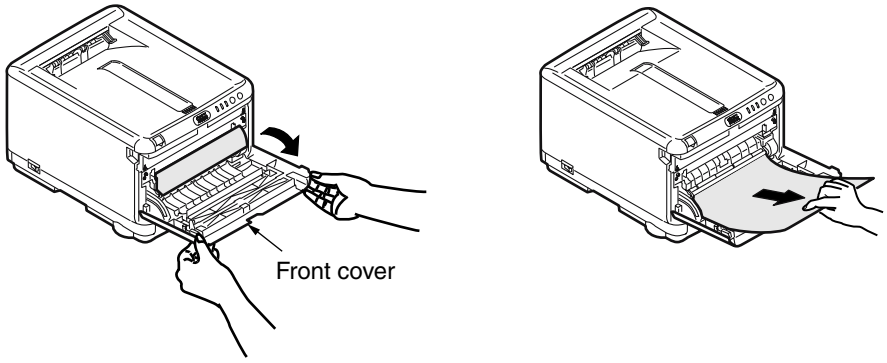
[code: 380 (front cover jam), 391 (paper feed jam), and 400 (paper size error)]

Open the front cover, if the front and the rear end of the paper can be seen, please pull the jammed paper out slowly.
As for code 400, the paper can be automatically ejected. At this time, open and close the front cover, then the error can be released.

If the rear end can be seen



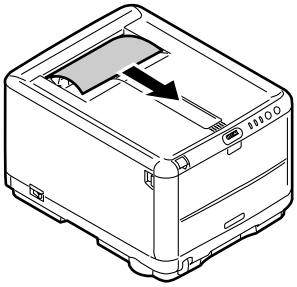
If the front end can be seen



Paper eject part [code: 382 (paper eject jam)]

Draw the paper out slowly from the exit.

Note! Even if paper jammed at the paper exit, when the paper can be seen inside the top cover, the paper should be removed inside the printer.
The fuser might be damaged if drawing the paper out from behind with too much force.



Jam Release Method ②

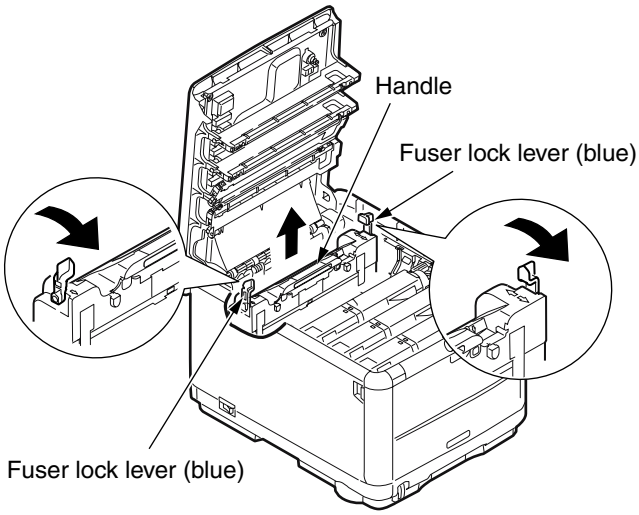
Fuser Unit Part [code: 381 (Paper feeding jam) and 382 (paper eject jam)]

⚠Caution	Possible to get burned.	

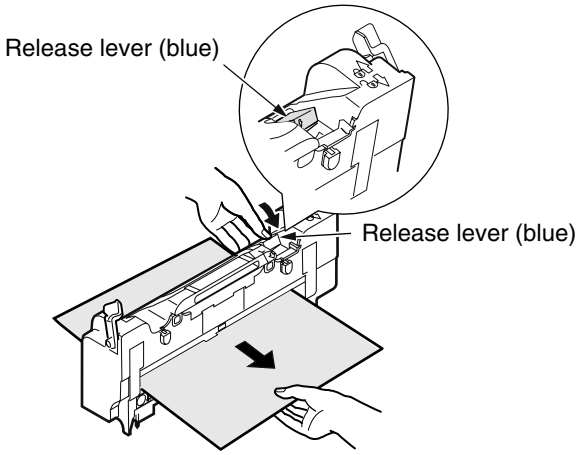
The fuser unit is extremely hot. Be careful not to touch it. If the fuser unit is hot, do not try yourself to clear paper but wait until the fuser unit becomes cool.

(1) Raise the fuser lock lever (two blue places) in the direction of the arrow.

(2) Hold the handle and take the fuser out, put it on a flat table.

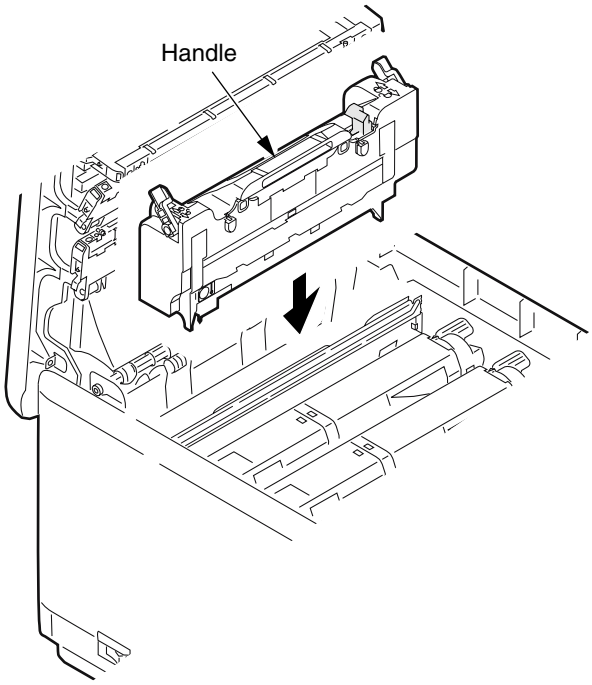


(3) Draw the jammed paper out slowly in the direction of the arrow, while pressing the lever of the fuser (blue) in the direction of the arrow.



(4) Hold the handle, return the fuser to the printer softly.

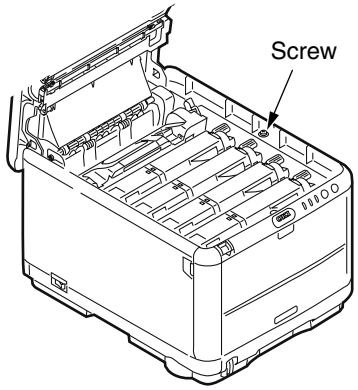
(5) Push the fuser lock lever (two blue places) down to the interior side, and fix it.



Note! After removing the paper jammed in the fuser, please print the menu map (section 3.6) and the white paper etc for several times because the unfixed toner may remain in the fuser.

Remove other jammed paper according to the following procedures when the paper jam error still cannot be released even if jammed paper has been removed.

(1) Touch the screw by hand to remove the static.

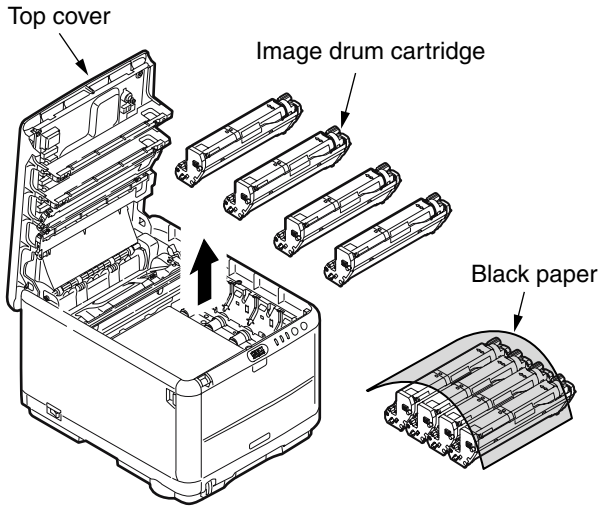


(2) Take the image drum (four cartridges) out, and put them on a table with flat surface.

(3) Cover the taken-out image drum cartridge with black paper.

Note! • The image drum surface (green cylinder unit) is very delicate. Please handle with care.

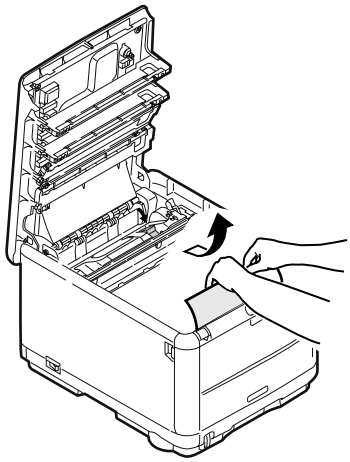
• Never expose the image drum cartridge to direct sunlight or very bright light (more than 1500 lux).
Do not expose it to normal room light for more than 5 minutes.



(4) Carefully remove the jammed paper.

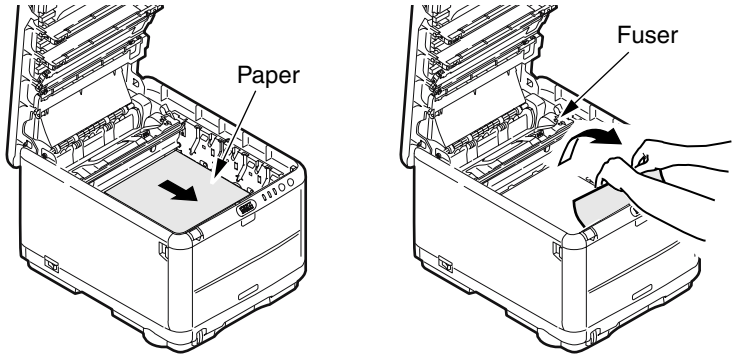
When the front end of the paper can be seen

Carefully remove the jammed paper inside the printer.



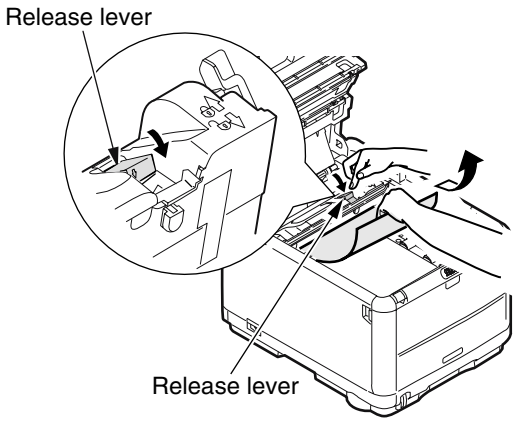
When the front and back end of paper cannot be seen

Carefully remove the jammed paper in the direction of the arrow.



When the back end of paper can be seen

Press the release lever in the direction of the arrow, and carefully remove the jammed paper.



(5) Put the image drum cartridge back into position

7.5.2.(3) Paper Feed Jam (Error 391:1st tray)

(3-1) Paper jam occurred immediately after turning on the printer. (1st tray)

Confirmation Items		Confirmation Tasks	Action at NG
(3-1-1) Check paper-feeding route condition			
	Paper-feeding route inside the front unit	Open the front cover, and check whether the paper jam occurred during the route.	Remove the jammed paper.
(3-1-2) Check the mechanical parts' condition			
	Check the sensor lever of the entry sensor 1 and 2.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(3-1-3) Check the electrical parts' condition			
	Check the condition of sensor signal detection.	By using the switch scanning test function of the maintenance utility, check whether the sensor signal has been normally detected.	Replace the main board (BLA PCB) or front sensor board (MIP PCB) or the connecting cable with new one.
	Check the output level of entry sensor 1 and 2.	Check the following signals of FSNS connector of main board (BLA PCB). 2pin: entry sensor 1 3pin: entry sensor 2 Operate and adjust the sensor lever in order to check the above signal level.	Replace the front sensor board (MIP PCB) with a new one.
	Check the power supply of front sensor board (MIP PCB).	Check the power supply of 5V of CN connector of front sensor board (MIP PCB). 1pin: 5V power supply 5pin: 0VL	Replace the connecting cable with a new one.

(3-2) Paper jam occurred immediately after paper feeding. (1st tray)

Confirmation Items		Confirmation Tasks	Action at NG
(3-2-1) Check paper-feeding route condition			
	Paper-feeding route inside the front unit	Check whether the paper jam occurred during the route.	Remove the jammed paper.
(3-2-2) Check the mechanical parts' condition			
	Check the sensor lever of the entry sensor 1 and 2.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(3-2-3) Check the motor operation			
	Paper feed motor	By using the motor clutch test function of the maintenance utility, check whether paper feed motor operates normally.	Replace the main board (BLA PCB) or paper feed motor with new one.
	Paper feed motor driver	Pull the HOP connector of main board (BLA PCB) out, check the following resistance value on the cable side. SEVERAL MΩ Between 1pin-FG SEVERAL MΩ Between 2pin-FG SEVERAL MΩ Between 3pin-FG SEVERAL MΩ Between 4pin-FG	Replace the main board (BLA PCB) with a new one.

Confirmation Items		Confirmation Tasks	Action at NG
(3-2-4) Check the connection			
	Check the cable connection.	By visual inspection, please check whether incompletely connection and oblique insertion of connector or defective cable assembly exists.	Connect the cable normally.Replace the cable with a new one.
	Paper feed motor cable	Check whether wire gnawing occurred during assembly of equipment. Pull the HOP connector of main board (BLA PCB) out, check the followings on the cable connector. Short circuit between 1pin-FG Short circuit between 2pin-FG Short circuit between 3pin-FG Short circuit between 4pin-FG	Replace the cable with a new one, and reassemble correctly.
	Paper feed motor	Pull the HOP connector of the main board (BLA PCB) out, check whether the resistance values between 1pin-2pin and 3pin-4pin are about 3.5Ωor 4.4Ωrespectively on the cable side.	Replace the paper feed motor with a new one.
(3-2-5) Check the solenoid operation			
	Paper feed solenoid	By using the motor clutch test function of the maintenance utility, check whether paper feed solenoid operates normally. Remove the sheet metal of the right side in order to check whether the solenoid can be seen.	Replace the main board (BLA PCB) or paper feed solenoid with new one.
	Paper feed solenoid	Check whether the parts that may disturb the operation of moving parts of the solenoid exist (cable etc).	Assemble normally.
(3-2-6) Check the connection			
	Paper feed solenoid cable	Check the cable connection. By visual inspection, please check whether incompletely connection and oblique insertion of connector or defective cable assembly exists	Connect the cable normally. Replace the cable with a new one.
	Paper feed solenoid cable	Check whether wire gnawing occurred during assembly of equipment. Pull the HSOL connector of main board (BLA PCB) out, check the followings on the cable side. Short circuit between 1pin-FG Check whether the resistance value between 1pin-2pin is about 82Ω with pulling the HSOL connector out.	Replace the solenoid ASSY with a new one, and reassemble correctly.

7.5.2.(4) Paper Feed Jam (Error 390: Multipurpose tray)

(4-1) Paper jam occurred immediately after turning on the printer. (Multipurpose tray)

Confirmation Items		Confirmation Tasks	Action at NG
(4-1-1) Check paper-feeding route condition			
	Paper-feeding route inside the multipurpose tray	Check whether the paper jam occurred during the route.	Remove the jammed paper.
(4-1-2) Check the mechanical parts' condition			
	Check the sensor lever of the entry sensor 2 and WR sensor.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(4-1-3) Check the electrical parts' condition			
	Check the condition of sensor signal detection.	By using the switch scanning test function of the maintenance utility, check whether the sensor signal has been normally detected.	Replace the main board (BLA PCB) or front sensor board (MIP PCB) or the connecting cable with new one.
	Check the output level of entry sensor 2 and WR sensor.	Check the following signals of FSNS connector of PU board (BLA PCB). 2pin: WR sensor 3pin: entry sensor 2 Operate and adjust the sensor lever in order to check the above signal level.	Replace the front sensor board (MIP PCB) with a new one.
	Check the power supply of front sensor board (MIP PCB).	Check the power supply of 5V of CN connector of front sensor board (MIP PCB). 1pin: 5V power supply 5pin: 0VL	Replace the connecting cable with a new one.

(4-2) Paper jam occurred immediately after paper feeding. (Multipurpose tray)

Confirmation Items		Confirmation Tasks	Action at NG
(4-2-1) Check paper-feeding route condition			
	Paper-feeding route inside the multipurpose tray	Check whether the paper jam occurred during the route.	Remove the jammed paper.
(4-2-2) Check the mechanical parts' condition			
	Check the sensor lever of the entry sensor 2 and WR sensor.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
	Front cover	Check whether the left and right lock of front cover has been locked normally. Confirm both right and left locks of the front cover work well.	Replace the front unit with a new one.
(4-2-3) Check the motor operation			
	Paper feed motor	By using the switch scanning test function of the maintenance utility, check whether paper feed motor operates normally.	Replace the main board (BLA PCB) or paper feed motor with new one.
	Paper feed motor driver	Pull the HOP connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL MΩ Between 1pin-FG SEVERAL MΩ Between 2pin-FG SEVERAL MΩ Between 3pin-FG SEVERAL MΩ Between 4pin-FG	Replace the main board (BLA PCB) with a new one.
(4-2-4) Check the connection			
	Paper feed motor cable	Check the cable connection. By visual inspection, check whether incompletely connection and oblique insertion of HOP connector of main board (BLA PCB) or defective cable assembly exists.	Connect the cable normally. Replace the cable with a new one.
	Paper feed motor cable	Check whether wire gnawing occurred during assembly of equipment. Pull the HOP connector of main board (BLA PCB) out, check the followings on the cable side. Short circuit between 1pin-FG Short circuit between 2pin-FG Short circuit between 3pin-FG Short circuit between 4pin-FG	Replace the cable with a new one, and reassemble correctly.
	Paper feed motor	Pull the HOP connector of the main board (BLA PCB) out, check whether the resistance values between 1pin-2pin and 3pin-4pin are about 3.5Ω or 4.4Ω respectively.	Replace the paper feed motor with a new one.

7.5.2.(5) Paper transport jam (Error 381)

(5-1) Transport jam occurred immediately after turning on the printer.

Confirmation Items		Confirmation Tasks	Action at NG
(5-1-1) Check paper-feeding route condition			
	Paper-feeding route inside the front unit	Check whether the paper jam occurred during the route.	Remove the jammed paper.
(5-1-2) Check the mechanical parts' condition			
	Check the sensor lever of the WR sensor.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(5-1-3) Check the electrical parts' condition			
	Check the condition of sensor signal detection.	By using the switch scanning test function of the maintenance utility, check whether the sensor signal has been normally detected.	Replace the main board (BLA PCB) or front sensor board (MIP PCB) or the connecting cable with new one.
	Check the output level of WR sensor.	Check the following signals of FSNS connector of main board (BLA PCB). 4pin: WR sensor Operate and adjust the sensor lever in order to check the signal level.	Replace the front sensor board (MIP PCB) with a new one.
	Check the power supply of front sensor board (MIP PCB).	Check the power supply of 5V of CN connector of front sensor board (MIP PCB). 1pin: 5V power supply 5pin: 0VL	Replace the connecting cable with a new one.

(5-2) Transport jam occurred immediately after paper pickup.

Confirmation Items		Confirmation Tasks	Action at NG
(5-2-1) Check feeding condition			
	Paper feeding on the belt	Remove the ID unit, and check whether the paper jam occurred during the route.	Remove the jammed paper.
(5-2-2) Check the mechanical parts condition			
	Check the sensor lever of the WR sensor.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(5-2-3) Check the motor operation			
	Paper feed motor, belt motor, ID up motor, ID motor	By using the motor clutch test function of the maintenance utility, check whether paper feed motor and belt motor and ID up motor and ID motor operates normally. Check whether the load exists.	As for a paper feed motor, belt motor, ID motor or ID up motor, please replace the main board (BLA PCB) with new one. Replace the paper feed motor or belt motor or ID motor or ID up motor with a new one. Replace ID unit and belt unit with new one. When trying to use a new belt unit, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.) When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
	Paper feed motor driver, ID up motor driver, belt motor driver	Pull the HOP connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL M‰ Between 1pin-FG SEVERAL M‰ Between 2pin-FG SEVERAL M‰ Between 3pin-FG SEVERAL M‰ Between 4pin-FG Pull the IDUP connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL M‰ Between 1pin-FG SEVERAL M‰ Between 2pin-FG SEVERAL M‰ Between 3pin-FG SEVERAL M‰ Between 4pin-FG Pull the BELT connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL M‰ Between 1pin-FG SEVERAL M‰ Between 2pin-FG SEVERAL M‰ Between 3pin-FG SEVERAL M‰ Between 4pin-FG	As for a paper feed motor, belt motor, ID up motor, please replace the main board (BLA PCB) with a new one.

Confirmation Items		Confirmation Tasks	Action at NG
(5-2-4) Check the connection			
	Paper feed motor cable, ID motor cable, belt motor cable, ID up motor cable, fuser motor cable	Check the cable connection. By visual inspection, check whether incompletely connection and oblique insertion of HOP connector, CID connector, BELT connector, IDUP connector and HEAT connector or defective cable assembly exists.	Assemble normally. Replace the cable with a new one.
	Paper feed motor cable, belt motor cable, ID up motor cable	Check whether wire gnawing occurred during assembly of equipment. Pull the HOP connector of main board (BLA PCB) out, check the followings on the cable side. SEVERAL M‰ Between 1pin-FG SEVERAL M‰ Between 2pin-FG SEVERAL M‰ Between 3pin-FG SEVERAL M‰ Between 4pin-FG Pull the BELT connector of main board (BLA PCB) out, check the followings on the cable side. SEVERAL M‰ Between 1pin-FG SEVERAL M‰ Between 2pin-FG SEVERAL M‰ Between 3pin-FG SEVERAL M‰ Between 4pin-FG Pull the IDUP connector of main board (BLA PCB) out, check the followings on the cable side. SEVERAL M‰ Between 1pin-FG SEVERAL M‰ Between 2pin-FG SEVERAL M‰ Between 3pin-FG SEVERAL M‰ Between 4pin-FG	Replace the cable with a new one, and reassemble correctly.
	Paper feed motor, belt motor, ID up motor	Pull each connector out of the board, and check the following resistance value between terminals on the cable side. HOP connector of main board (BLA PCB) Between 1pin-2pin: about 3.5‰ or 4.4‰ Between 3pin-4pin: about 3.5‰ or 4.4‰ BELT connector of main board (BLA PCB) Between 1pin-2pin: about 3.5‰ or 4.4‰ Between 3pin-4pin: about 3.5‰ or 4.4‰ IDUP connector of main board (BLA PCB) Between 1pin-2pin: about 7‰ or 6.7‰ Between 3pin-4pin: about 7‰ or 6.7‰	Replace the paper feed motor, belt motor, ID up motor with a new one.

(5-3) Transport jam occurred during paper feeding.

Confirmation Items		Confirmation Tasks	Action at NG
(5-3-1) Check the motor operation			
	Paper feed motor, belt motor, ID motor, ID up motor	By using the motor clutch test function of the maintenance utility, check whether the paper feed motor and belt motor and ID motor and ID up motor operate normally. Check whether the load exists.	Replace main board (BLA PCB) or the paper feed motor belt motor ID motor ID up motor or ID unit Abelt unit with a new one. When trying to use a new belt unit, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.) When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
	Paper feed motor driver, belt motor driver, ID up motor driver	Pull the HOP connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL M_Between 1pin-FG SEVERAL M_Between 2pin-FG SEVERAL M_Between 3pin-FG SEVERAL M_Between 4pin-FG Pull the BELT connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL M_Between 1pin-FG SEVERAL M_Between 2pin-FG SEVERAL M_Between 3pin-FG SEVERAL M_Between 4pin-FG Pull the IDUP connector of main board (BLA PCB) out, check the following data on the cable side. SEVERAL M_Between 1pin-FG SEVERAL M_Between 2pin-FG SEVERAL M_Between 3pin-FG SEVERAL M_Between 4pin-FG	As for paper feed motor or ID up motor or Belt motor, Please replace the main board (BLA PCB) with a new one.

(5-4) Transport jam occurred immediately after fuser is in position.

Confirmation Items		Confirmation Tasks	Action at NG
(5-4-1) Check the motor operation			
	Fuser motor	By using the motor clutch test function of the maintenance utility, check whether fuser motor operates normally. Check whether load exists.	Replace the main board (BLA PCB) with a new one. Replace the fuser with a new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility.
(5-4-2) Temperature control of roller rotate speed			
	Heat roller detected temperature	By using the switch scanning test function of the maintenance utility, check the heat roller detected temperature. Check whether abnormal low-temperature or high-temperature has been detected.	Replace the fuser with a new one; replace the rear sensor relay board (ZAK PCB) or main board (BLA PCB) with new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility.(See Note! on page 154.)
(5-4-3) Check the mounting of fuser			
	Fuser	Check whether fuser has been mounted normally. (has the fuser been pressed to bottom?)	Mount the unit in position.

7.5.2.(6) Paper Exit Jam (Error 382)

(6-1) Paper eject jam occurred immediately after turning on the printer.

Confirmation Items		Confirmation Tasks	Action at NG
(6-1-1) Check paper-ejecting route condition			
	Paper-ejecting route across paper eject part.	Check whether the paper jam occurred during the route.	Remove the jammed paper.
(6-1-2) Check the mechanical parts' condition			
	Check the paper-ejecting sensor lever.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(6-1-3) Check the electrical parts' condition			
	Check the condition of sensor signal detection.	By using the switch scanning test function of the maintenance utility, check whether the sensor signal has been normally detected.	Replace the main board (BLA PCB) or EXIT sensor or the connecting cable with new one.
	Check the output level of EXIT sensor.	Check the following signals of RSNS connector of main board (BLA PCB). 9pin: EXIT sensor Operate and adjust the sensor lever in order to check the above signal level.	Replace the EXIT sensor with a new one.
	Check the power supply of rear sensor relay board (ZAK PCB).	Check the power supply of 5V of CN2 connector of rear sensor relay board (ZAK PCB). 1pin: 5V power supply 3pin: 0VL	Replace the connecting cable with a new one.
(6-1-4) Check the connection			
	Signal wire of rear sensor relay board, EXIT sensor cable	Check whether FFC has been inserted into RELAY connector of main board (BLA PCB) and CN1 connector of rear sensor relay board (ZAK PCB) normally. Check whether the cable between color difference sensor board (ZAK PCB) and EXIT sensor has been connected normally.	Connect normally.
	Signal wire of rear sensor relay board, EXIT sensor cable	Check whether wire gnawing, peel-off or defective cable assembly exists.	Replace the connecting cable with a new one and reassemble normally.

(6-2) Paper eject jam occurred immediately after paper pickup.

Confirmation Items		Confirmation Tasks	Action at NG
(6-2-1) Check the paper route condition			
	Faceup stacker cover	Check whether the cover is completely close or open.	Do not keep the cover in incomplete close/open state.
	Rear panel	Check whether rear panel is installed normally and may disturb the operation.	Reinstall the rear panel correctly.
	Paper-ejecting route across paper eject part.	By visual inspection, check whether there exists something like load that may disturb the paper-ejecting operation. Check whether eject roller is jammed.	Repair the load.
(6-2-2) Check the mechanical parts condition			
	Check the eject sensor lever.	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.
(6-2-3) Check the motor operation			
	Fuser motor	By using the motor clutch test function of the maintenance utility, check whether fuser motor operates normally. Check whether load exists.	Replace the main board (BLA PCB) or fuser motor or fuser with new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)
(6-2-4) Check the connection			
	Paper feed motor cable	Check the cable connection. By visual inspection, please check whether incompletely connection and oblique insertion of HEAT connector of main board (BLA PCB) or defective cable assembly exists.	Connect the cable normally. Replace the cable with a new one.
	Fuser motor		Replace the fuser motor with a new one.

(6-3) Paper eject jam occurred during paper feeding.

Confirmation Items		Confirmation Tasks	Action at NG
(6-3-1) Confirm status of the motor operation			
	Fuser Motor	By using the motor clutch test function of the maintenance utility, check whether fuser motor operates normally. Check whether load exists.	Replace the main board (BLA PCB) or fuser motor or fuser with new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)

7.5.2.(7) Paper Size Error (Error 400)

(7-1) Jam occurred when the rear end of paper is close to IN1 sensor.

Confirmation Items		Confirmation Tasks	Action at NG
(7-1-1) Check the paper feeding condition			
	Paper overlapping	Open the front cover, and check whether two or more document sheets are fed overlapping.	If paper jam reoccurred after removing jammed paper, please replace the tongue piece of used tray.
	Paper size	Check whether size of paper loading inside tray is compatible with specified paper size.	Change the size of specified paper or change the size of paper in the tray.
	Entry sensor 1	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the sensor lever with a new one.

7.5.2.(8) ID Unit Up-Down Error (Service Call 140-143)

(8-1) Error occurred during ID unit up operation

Confirmation Items		Confirmation Tasks	Action at NG
(8-1-1) Check the load during up operation			
	Load when ID unit is attached or removed	Check whether abnormal load exists when ID unit is attached or removed.	Replace the ID unit or right-and-left side plate with new one. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
	Up-and-down link lever grease of right-and-left side	Check whether the slant of link lever is greased up.	Spread the grease evenly.
	Assembly of up-and-down link lever of right-and-left side	Check whether the parts around the link lever that may disturb the movement of link lever exist. (Cable etc.)	Assemble correctly.
(8-1-2) Up-and-down mechanism			
	Assembly condition around link lever	Check whether the link lever is connected with planet gear.	Assemble correctly.
	Left-and-right link lever	Is the link lever set correctly in position of engagement? (Check whether the set position of link lever is out of gear tooth.)	Assembly correctly.
(8-1-3) Check the sensor.			
	Up-and-down sensor lever (which is integrated with left link lever)	Check whether there is something abnormal about the form of sensor lever and its movement.	Replace the left link lever with a new one.
	Up-and-down sensor	Switch scanning test function of the maintenance utility.	Replace the high-voltage board with a new one.

(8-2) Error occurred during ID unit down operation

Confirmation Items		Confirmation Tasks	Action at NG
(8-2-1) Check the load during down operation			
	Load when ID unit is attached or removed	Check whether abnormal load exists when ID unit is attached or removed.	Replace the ID unit or right-and-left side plate with new one.
	Up-and-down link lever grease of right-and-left side	Check whether the slant of link lever is greased up.	Spread the grease evenly.
	Assembly of up-and-down link lever of right-and-left side	Check whether the parts around the link lever that may disturb the movement of link lever exist. (Cable etc.)	Assemble correctly.

7.5.2.(9) Fuser Error (Error 170-177)

(9-1) Error occurred immediately after turning on the printer.

Confirmation Items		Confirmation Tasks	Action at NG
(9-1-1) Trouble of thermistor Note)			
	Upper thermistor, lower thermistor, frame thermistor, side thermistor (only C3400/C3450)	Check whether short or open circuit exists. Check the resistance value of connector pins on the lower part of fuser. (Refer to Chapter 8.1 check the resistance value (Fuser))	Replace the fuser with a new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)
	Mounting condition of fuser	Is the connector of lower part of fuser pressed in position in order to mount the fuser?	Reset the fuser.

Note! Because service call 171 error and 175 error may occur when the temperature of printer is below zero, please restart the printer after making it warm when the temperature of printer is low.

(9-2) Error occurred after turning on the printer for about 1 minute.

Confirmation Items		Confirmation Tasks	Action at NG
(9-2-1) Temperature rise of fuser			
	Thermostat, halogen lamp	Perform the heater control of fuser, and by hand check whether the fuser is warmed up. Check that the resistance value between 1pin-7pin of connector is several ‰ -several 10‰ with keeping the printer cool. (Refer to Chapter 8.1 check the resistance value (Fuser))	Replace the fuser with a new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)
(9-2-2) Temperature rise of fuser			
	Installation of upper thermistor	The upper thermistor may be installed out of position, is the measured temperature lowered? Remove the heater cover, by visual inspection check whether bending of sensor occurs.	Replace the fuser with a new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)
	Installation of lower thermistor	If the lower thermistor is not contacted, would the detected temperature be lower than actual temperature?	Replace the fuser with a new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)
(9-2-3) AC input for halogen			
	AC voltage of low-voltage power supply	Is AC voltage supplied for heater normally? Between 1-3pin and 3-4pin of CN2 connector of power supply	Replace the low-voltage power supply.
	Heater ON signal outputted from PU to low-voltage power supply	Check whether heater ON signal is activated in the warming-up timing. L is activated during ON. 14pin of POW connector of main board (BLA PCB)	Replace the main board (BLA PCB) with a new one.

7.5.2.(10) Motor Fan Error(Error 127)

(10-1) Fan cannot rotate.

Confirmation Items		Confirmation Tasks	Action at NG
(10-1-1) Cable connection, wire layout			
	Cable connection, wire layout of low-voltage power supply and fuser fan and CU fan	Check whether the connector is connected normally. Check whether the redundant part of cable may touch the fan blade.	Reconnect the connector. Correct the wiring route. Replace the FAN with a new one.
(10-3-1) 24V power supply			
	Fuse F3 of PU board (BLA PCB)	Check whether F3 are opened.	Replace the PU board (BLA PCB) with a new one.
	24V power supply supplied to PU board (BLA PCB)	Check the power supply of POW connector of PU board (BLA PCB). 3,4pin: 24V 7,8,9pin: 0VL 1,2pin: 0VP	Replace the low-voltage power supply.

Note! Precaution for using FUSE KEEP MODE of the maintenance utility for troubleshooting

- "Please click on the [Execute] button to enter FUSE KEEP mode" is displayed whenever you try to set FUSE KEEP MODE to ON from the maintenance utility regardless of the current setting.
- If you want to set it to OFF reliably, please turn down the power of the device once.

7.5.2.(11) Print Speed is Slow (Low Performance)

(11-1) The print speed will fall to about 2ppm after the continuous print started for about ten minutes.

Confirmation Items		Confirmation Tasks	Action at NG
(11-1-1) Ambient temperature			
	The ambient temperature of the set position of printer	Is the printer set in narrow position that will result in abnormal high ambient temperature and low cooling effect taken from fan?	Adjust the installation environment. (Be careful to check whether the air duct and exhaust of fan is plugged.)

(11-2) The print speed slowed down

Confirmation Items		Confirmation Tasks	Action at NG
(11-2-1) Media Media Weight setting			
	Specified Media Weight when printing.	Check whether the specified Media Weight is correct.	Correct the Media Weight.

7.5.2.(12) LED head is not recognized(Error 131,132,133,134)

(12-1) Service Call 131-134(LED HEAD Missing)

Confirmation Items		Confirmation Tasks	Action at NG
(12-1-1) Check the connection			
	Connection of main board connector and head connector	By visual inspection, check the FFC connection.	Connect normally.
	Head FFC	Remove the head FFC from equipment, and check whether the wire-break and peeling off of coating occurred.	Replace head FFC or main board with a new one.
	Fuse conduction on the main board.	Check that F5 fuse isn't broken. Check the voltage between two terminals of capacitor CP13 is 5V. (Please refer to chapter 7.6.)	Replace main board with a new one.

7.5.2.(13) Toner cartridge is not recognized (Error 540, 541, 542, 543)

(13-1) Consumable error

Confirmation Items		Confirmation Tasks	Action at NG
(13-1-1) Mounting condition of Consumable			
	ID unit and toner cartridge	Is ID unit set in position? Check whether lock lever of toner cartridge is locked.	Reset normally.

(13-2) Toner sensor error

Confirmation Items		Confirmation Tasks	Action at NG
(13-2-1) Toner sensor condition			
	Toner sensor	Does the core of toner sensor get dirty from toner?	Wipe the dirt of sensor off.
	Toner sensor	By using the switch scanning test function of the maintenance utility, check whether the sensor is normal. Check whether the SCAN condition is changed with a white paper covering in front of sensor. Furthermore, start the printer with right side cover removed, and check whether the red lamp of toner sensor blinks over PRE board.	Replace the toner sensor board (PRE PCB) or main board (BLA PCB) or FFC between PRE-BLA with new one.

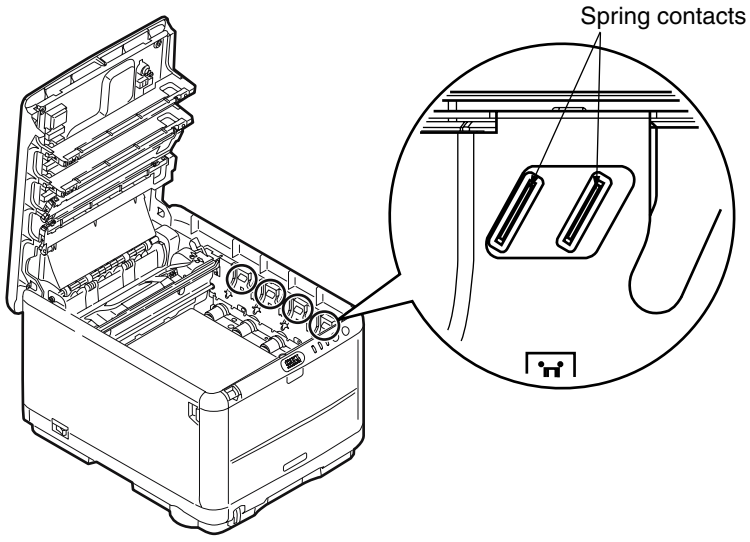
(13-3) Defective mechanism error

Confirmation Items		Confirmation Tasks	Action at NG
(13-3-1) Load condition of ID unit			
	ID unit	Is the load of the ID unit added by the waste toner belt etc?	Replace the ID unit with a new one. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
(13-3-2) Check the motor operation			
	ID motor	By using the motor clutch test function of the maintenance utility, check whether each ID motor operates normally. Check whether the load exists.	Replace the main board (BLA PCB) or ID motor with new one.

7.5.2.(14) Fuse Cut Error (Error 150-155)

(14-1) Fuse cut errors

Confirmation Items		Confirmation Tasks	Action at NG
(14-1-1) Check the connection			
	FFC connected with main board (BLA PCB) and toner sensor board (PRE PCB)	Check whether incompletely connection and oblique insertion of SSNS connector of main board (BLA PCB) and SSNS connector of toner sensor board (PRE PCB) exists. Check whether the wire-break and peeling off of coating for FFC occurs.	Connect FFC correctly. Or replace FFC with a new one.
	Spring contacts with toner senser board.	Check whether the spring contacts are installed correctly.	Install the spring contacts correctly.
(14-1-2) Fuse cut circuit			
	Main board (BLA PCB)	After checking the connection, turn on the printer again, and then check whether error occurs.	Replace the main board (BLA PCB) with a new one.



7.5.2.(15) Dew Condensation Errors (Error 123)

(15-1) Dew Condensation

Confirmation Items		Confirmation Tasks	Action at NG
(15-1-1) Check of the connection			
	Connection of main board (BLA PCB) and high-voltage board	Check whether 12-pole FFC is normally connected with the HVOLT connector of main board (BLA PCB). Check whether 12-pole FFC is normally connected with the CN1 connector of high-voltage board. Check whether incompletely connection and oblique insertion occurs.	Reinsert the cable normally.
	Connection of main board (BLA PCB) and high-voltage board	Check the wire-break by tester. By visual inspection, check whether peeling off of coating occurs.	Replace FFC with a new one.
(15-1-2) Environment condition			
	Extreme change of environment condition	Is environment temperature changed from low to high in a short time? (For example, move from cold storage area to office environment.)	After moving the printer to the new environment for about one hour till it adapts to new environment, turn on the printer again. Before turning on the printer, please check the temperature of sheet metal of rear control panel and inner sheet metal by hand and check that the difference between the above and room temperature doesn't exist, then turn on again.

7.5.2.(16) RFID Related Error (Error 610-613)

(16-1) A toner cartridge not installed

Confirmation Items		Confirmation Tasks	Action at NG
(16-1-1) Check attachment of the toner cartridge			
	Attachment status of the toner cartridge	Confirm that appropriate toner cartridges are used.	Replace with an appropriate spare toner cartridge that is not the starter toner cartridge.
(16-1-2) Check mode of toner cartridges			
	Starter toner cartridge mode (STC) or Normal toner cartridge mode (NTC)	Print out the menu map by continuation of operation by opening/closing the cover restoring the power, and check STC mode/NTC mode and installation of STC/NTC. Check the menu map for the following values. ET: . . . . . * KYMC-**** Every toner cartridge is in STC mode when the least significant digit of ET is F, or in NTC mode when 0. Every toner cartridge is in STC when the KYMC value is 0000, or in NTC mode when 1111. If STC is installed in NTC mode, the non-installation error occurs.	Replace with an appropriate spare toner cartridge that is not the starter toner cartridge.

(16-2) Detection of an inappropriate toner cartridge

Confirmation Items		Confirmation Tasks	Action at NG
(16-2-1) Check for an inappropriate toner cartridge			
	Check the toner cartridge	Check the status monitor for error details. Error: 554-557, 614-617, 620-623	Replace with a usable appropriate spare toner cartridge that is not a starter toner cartridge.

(16-3) Detection of an inappropriate toner cartridge

Confirmation Items		Confirmation Tasks	Action at NG
(16-3-1) Check for an inappropriate toner cartridge			
	Check the toner cartridge	Check the status monitor for error details. Error: 550-553	Replace with a usable appropriate spare toner cartridge that is not a starter toner cartridge.

(16-4) RFID communication error

Confirmation Items		Confirmation Tasks	Action at NG
(16-4-1) Check the connection			
	Check the connection of the RFID PCB	Check the connection of it to the BLA (main) board, the LUM (RFID reader writer) board, and the POL (RFID antenna PCB) board.	Reconnect the poorly connected cable. If the same error occurs in rechecking, replace the LUM board and/or BLA board.

7.5.3 Image Problem Troubleshooting

(1) Color is totally pale (Figure 7.2 **A**) 161
(1-1) Color is pale 161

(2) Background is dirty (Figure 7.2 **B**) 162
(2-1) Background is dirty (partly) 162
(2-2) Background is dirty (totally) 162

(3) Blank Print (Figure 7.2 **C**) 163
(3-1) Blank on the whole page 163

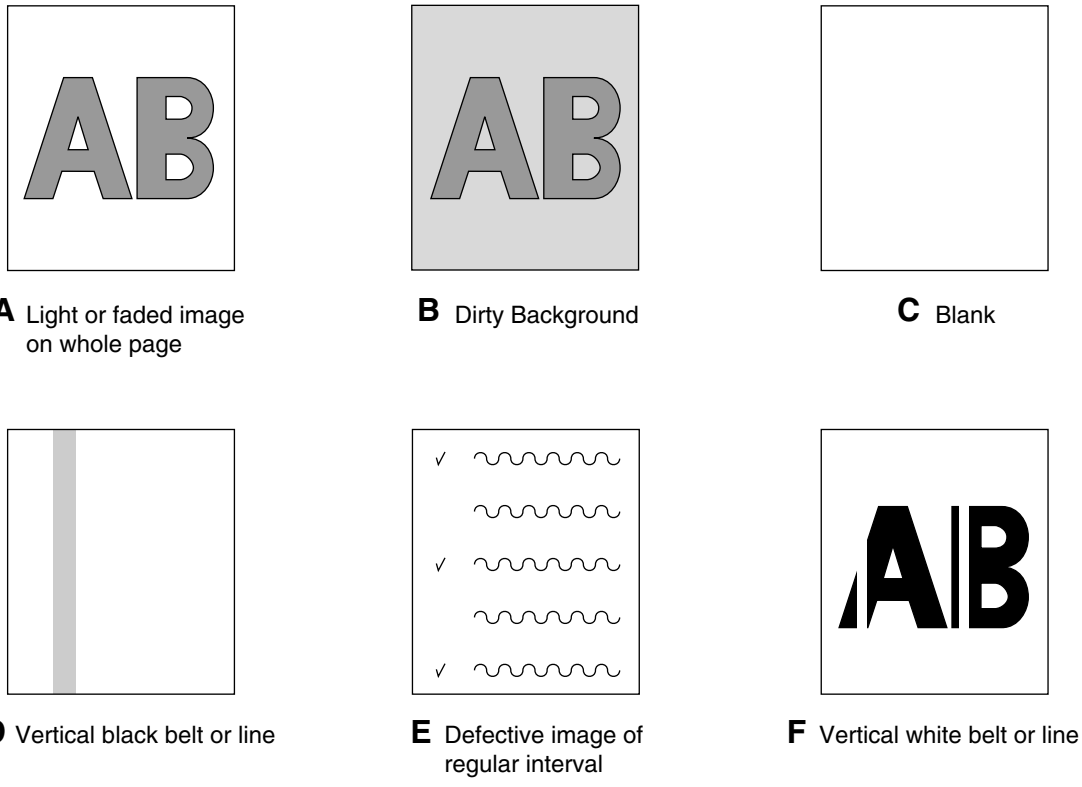
(4) Vertical lines are printed 164
(4-1) Thin vertical lines (with color) (See Figure 7.2 **D**) 164
(4-2) Thin vertical lines (without color) (See Figure 7.2 **F**) 164

(5) Cyclic Print Trouble (Refer to Figure 7.2 **E**) 165
(5-1) Vertical cyclic print trouble 165

(6) Color drift is wide. 166
(6-1) "ADJUSTING COLOR REGISTRATION" is shown only a short time 166
(6-2) Although REG ADJUST TEST of the engine maintenance function is OK, Color drift is seen 166

(7) Solid Black Print 167
(7-1) Solid black on a full page 167

Note! When replacing the PU board (PRX PCB), please read the content on the EEPROM chip of the old board and copy it to the new board..



A Light or faded image on whole page

B Dirty Background

C Blank

D Vertical black belt or line

E Defective image of regular interval

F Vertical white belt or line

Figure 7.2

7.5.3.(1) Color is totally pale (Figure 7.2 **A**)

(1-1) Color is pale

Confirmation Items		Confirmation Tasks	Action at NG
(1-1-1) Toner			
	Residual toner	Confirm that "TONER LOW" or "TONER EMPTY" is not shown in the operation panel.	Replace the toner cartridge with a new one.
	Tape of toner cartridge opening	Check whether tape of toner cartridge opening is peeled off.	Keep the lever of the toner cartridge in close state and peel off the tape of the opening.
(1-1-2) LED head			
	Lens of LED head	Check whether the surface of lens of LED head gets dirty from toner and paper scrap.	Clean the lens by LED head lens cleaner.
	Mounting condition of LED head	Check whether the LED head is correctly installed to the LED holder. Check whether right and left tension spring is correctly installed.	Remount normally.
(1-1-3) Printing media			
	Medium type	Check whether the printed media is especially thick.	Please use specified paper.
(1-1-4) High voltage terminal			
	ID unit terminal	By visual inspection, check whether the high-voltage terminals of ID unit are normally contacted with contacting ASSY. (Please refer to Figure 7-3)	Replace the ID unit or correct the high-voltage terminals. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
(1-1-5) Mounting condition of ID unit			
	Down position of ID unit (defective copy function)	Try to move the ID unit in and out by hand, check whether ID unit can go down to correct down position without abnormal load. If paper can be easily inserted between the drum and the belt, it means NG.	Check the U ditch of the side plate. If it is impossible to be repaired, please replace the equipment.

7.5.3.(2) Background is dirty (Figure 7.2 **B**)

(2-1) Background is dirty (partly)

Confirmation Items		Confirmation Tasks	Action at NG
(2-1-1) I D unit			
	Optical exposure of drum	Is the surface of the drum exposed to bright light for a long time?	Replace the ID unit with a new one. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
	Leakage of toner	Does leakage of toner from ID unit or toner cartridge occur?	Replace the ID unit or toner cartridge with new one. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
(2-1-2) Fuser			
	Offset toner of fuser	By visual inspection, check whether offset toner printed for last time adheres to fuser.	Try to use waste media to repeat the empty print for offset toner till print can be normally performed. Or replace the fuser with a new one. When trying to use a new fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.)

(2-2) Background is dirty (totally)

Confirmation Items		Confirmation Tasks	Action at NG
(2-2-1) Media for printing			
	Media type	Check whether the printed media is especially thin.	Please use specified paper.
(2-2-2) High-voltage terminals			
	ID unit terminals	By visual inspection, check whether the high-voltage terminals of ID unit are normally contacted with contacting ASSY. (Please refer to Figure 7-3)	Replace the ID unit or correct the high-voltage terminals. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)

7.5.3.(3) Blank Print (Figure 7.2 **C**)

(3-1) Blank on the whole page

Confirmation Items		Confirmation Tasks	Action at NG
(3-1-1) Toner condition			
	Residual toner	Check whether the toner in the toner cartridge remains enough.	Replace toner cartridge with a new one.
(3-1-2) Exposure condition			
	LED head	With the close cover, check whether LED head faces to the drum in position. Check whether the parts that may disturb the light emitting from light-emitting surface of LED head exist.	Correct the LED head setting.
	Connection of LED head	Check whether the LED head is correctly connected.	Replace the LED head with a new one.
	Drum shaft	Is drum shaft correctly contacted with left and right side plate?	Replace the ID unit with a new one. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
(3-1-3) High-voltage terminals			
	ID unit terminals	By visual inspection, check whether the high-voltage terminals of ID unit are normally contacted with contacting ASSY. (Please refer to Figure 7-3)	Replace the ID unit or replace the high-voltage board or correct the high-voltage terminals. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)

7.5.3.(4) Vertical lines are printed

(4-1) Thin vertical lines (with color) (See Figure 7.2 **D**)

Confirmation Items		Confirmation Tasks	Action at NG
(4-1-1) ID unit condition			
	Filming of ID unit	Print without toner?	Replace the toner cartridge with a new one. If trouble is occurred again after replacing, please replace ID unit with a new one. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)

(4-2) Thin vertical lines (without color) (See Figure 7.2 **F**)

Confirmation Items		Confirmation Tasks	Action at NG
(4-2-1) LED head condition			
	LED head	Does any foreign adhere to light-emitting surface of SELFOC lens of LED head?	Remove the foreign.
(4-2-2) Paper feeding condition			
	Feeding route	Check whether the barricade resulted from unfixed toner scratched during unfixed paper transport route exists.	Remove the barricade.

7.5.3.(5) Cyclic Print Trouble (Refer to Figure 7.2 **E**)

(5-1) Vertical cyclic print trouble

Confirmation Items		Confirmation Tasks	Action at NG
(5-1-1) Period			
	Image drum	Check whether the period is 75.4mm.	Exchange the ID unit.
	Development roller	Check whether the period is 34.05mm for Y, M-ID and 31.62mm for K,C-ID.	Exchange the ID unit.
	Toner supply roller	Check whether the period is 46.21mm for Y, M-ID and 42.91mm for K,C-ID.	Exchange the ID unit.
	Charging roller	Check whether the period is 31.42mm.	Exchange the ID unit.
	Upper roller of fuser	Check whether the period is 79.3mm.	Exchange the fuser unit.
	Lower belt of fuser(C3400/C3450)	Check whether the period is 75.4mm.	Exchange the fuser unit.
	Lower roller of fuser(C3300)	Check whether the period is 75.4mm.	Exchange the fuser unit.
	Transfer roller (Black)	Check whether the period is 50.27mm.	Exchange the belt unit.
	Transfer roller (Color)	Check whether the period is 43.98mm.	Exchange the belt unit.
			When trying to use a new belt and fuser, please utilize the fuse keep mode of the maintenance utility. (See Note! on page 154.) When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)

7.5.3.(6) Color drift is wide.

(6-1) "IN ADJUSTING COLOR REGISTRATION" is shown only a short time

Confirmation Items		Confirmation Tasks	Action at NG
(6-1-1) Result of color difference correction			
	Time of color difference correction (If the correction is normal, it should be about 30 seconds.)	Please perform REG ADJUST TEST of color difference correction test function of the maintenance utility, and then check the result of test.	Clean the sensor. Replace the shutter with a new one. Replace the main board (BLA PCB). Replace the color difference sensor board (PRE PCB).
(6-1-2) Toner			
	Residual toner	Check whether "TONER LOW" or "TONER EMPTY" is displayed by the status monitor.	Replace the toner cartridge with a new one.
(6-1-3) Color difference sensor			
	Dirt of sensor	Does the sensor get dirty from toner and paper scrap?	Wipe the dirt off.
(6-1-4) Color difference sensor shutter			
	Defective operation of shutter	By using the motor clutch test function of the maintenance utility, check whether the shutter operates normally.	Replace the shutter with a new one or correct the mechanism.

(6-2) Although REG ADJUST TEST of the engine maintenance function is OK, Color drift is seen

Confirmation Items		Confirmation Tasks	Action at NG
(6-2-1) Paper feed system			
	Paper feed system condition of paper-feeding route	Check whether the parts that may disturb the operation during paper-feeding route exist.	Remove the parts.

7.5.3.(7) Solid Black Print

(7-1) Solid black on a full page

Confirmation Items		Confirmation Tasks	Action at NG
(7-1-1) High-voltage contact condition			
	CH terminal	By visual inspection, look down to check whether high-voltage terminal of left side of ID unit that protrudes from the equipment is normal.	Replace the terminal of equipment side with a new one.
	CH terminal	Check whether the high-voltage terminal of high-voltage board is in normal contact state. Open the left cover and remove the high-voltage board, check whether terminal is installed abnormally.	Reinstall the terminal normally.
	ID unit terminal	By visual inspection, check whether the high-voltage terminals of ID unit are normally contacted with contacting ASSY. (Please refer to Figure 7.3)	Replace the ID unit or correct the high-voltage terminals. When trying to use a new ID unit, please be careful not to break the fuse with jig inside the ID unit. (Please refer to page 132)
(7-1-2) High-voltage output condition			
	CH output	When high-voltage probe is used as maintenance tool, please open the left cover and check the CH output from solder side of high-voltage board by high-voltage probe during printing. (High-voltage probe is not a usual maintenance tool.)	Replace the high-voltage board with a new one.

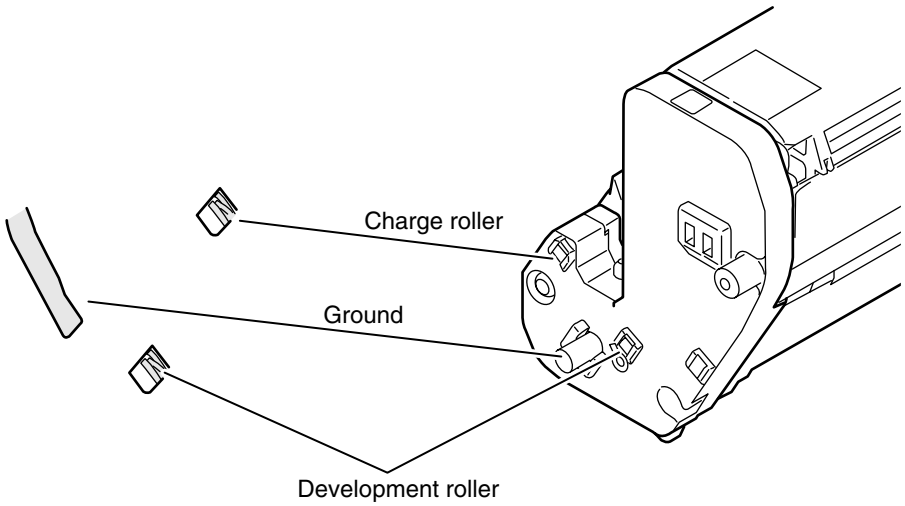


Figure 7.3

7.5.4 Response after Flash compulsive initialization

Explain the response after compulsive initialization is performed with trouble occurred in Flash.

(1) Flash compulsive initialization

If Flash compulsive initialization is performed, the following data would be deleted and the network would not be available.

- NIC-F/W
- WebPage data
- Demo page data for OEM (OEM)

It is necessary to write above NIC-F/W and WebPage data into Flash by the maintenance utility.

Note! Do not carry it out usually.

7.5.5 Network Troubleshooting

(1) Cannot print from Utility.

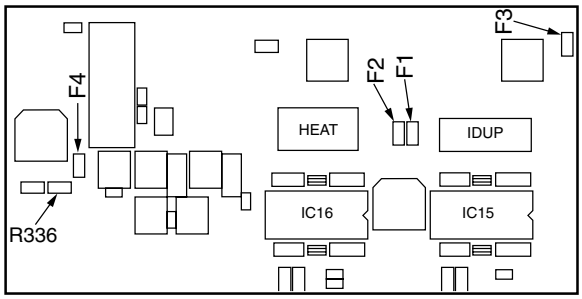
Confirmation Items	Confirmation Tasks	Action at NG
(1) Check the LINK lamp		
Check whether LINK lamp(green) is lighted.	Check whether HUB and printer are connected normally. (Check the network cable connection.)	Reconnect the network cable normally.
	Check whether straight cable is used.	Replace with straight cable.
	Try to insert the network cable into different HUB port.	Try to replace the HUB.
(2) Check the network information		
Check whether network information can be printed normally.	Press the Push-SW of NIC card, and then print out the network information.	Rewrite the NIC-F/W by utility.
(3) Check the content of network information		
Check IP address, Subnet mask, Gateway address.	Print out the network information. Check IP address, Subnet mask, Gateway address.	Set the IP address, Subnet mask, Gateway address correctly.
(4) Check whether the communication on the network is normal.		
Send the Ping command from PC to printer to check.	Send the Ping command from PC to printer, and check whether the response is correct.	Set the IP address, Subnet mask, Gateway address correctly.
(5) Check the utility		
Check the settings of OKIPR utility.	Check the setting items of OKIPR utility.	Set the setting items of OKIPR utility correctly.
(6) Check the OS standard port.		
Check windows (NT, 2000,XP) standard LPR port.	Set windows (NT, 2000,XP) standard LPR port, and check whether print is normal.	Set windows (NT, 2000,XP) standard LPR port correctly.

7.6 Fuse Checking

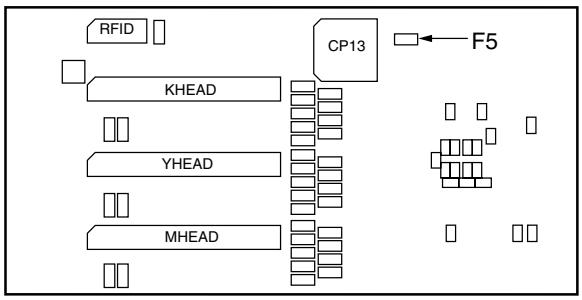
If the following errors occur, please check each fuse of the main board (BLA PCB). (Please refer to Table 7-6)

Table 7-6 Fuse Errors

Fuse Name		Error Description	Insert Point
Main board (BLA PCB)	F1	Hopping error Papers conveying error	Paper feed motor, fuser motor 24V
	F2	Papers conveying error ID UP/DOWN error	Belt motor, ID UP/DOWN motor 24V
	F3	FAN error Hopping error	Solenoid, FAN, Fuse cutter 24V
	F4	Cover open	Sensor etc. 5V
	F5	Service call 130 to 134 error	LED HEAD 5V
	R336	The LED turned off without control began.	For controlling 3.3V
High Voltage Board	F1	Cover open error	High voltage 24V
	F2	POWER LSI error	High voltage 5V



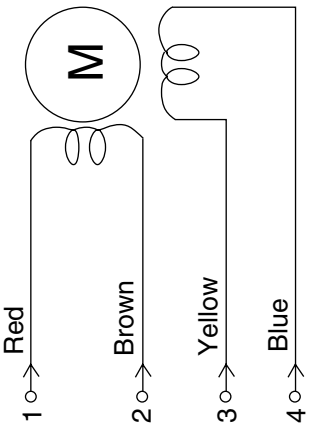
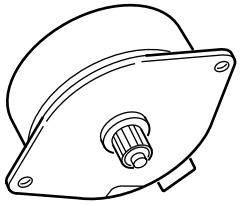
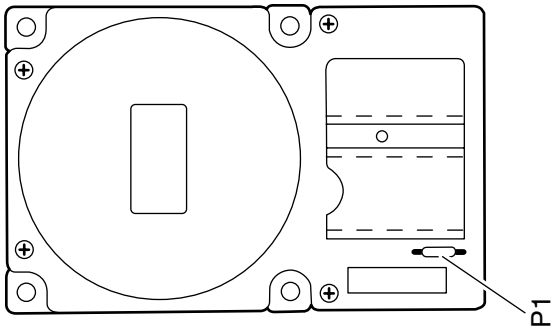
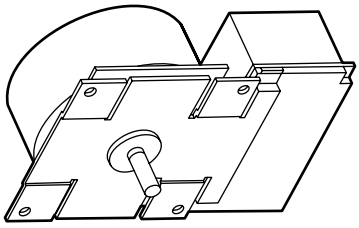
Enlarged drawing 1 of the main (BLA) board



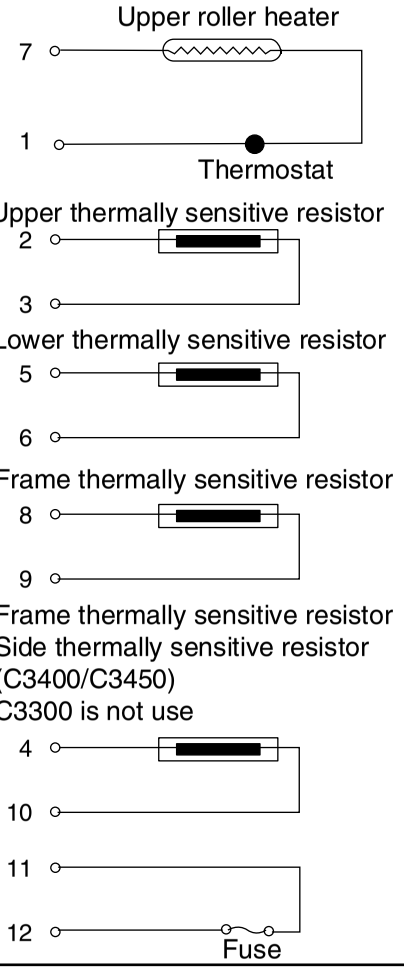
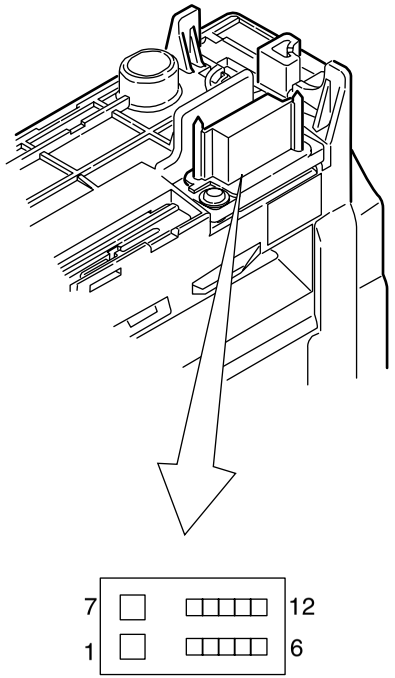
Enlarged drawing 2 of the main (BLA) board

8. CONNECTION DIAGRAMS

8.1 Check of resistance values

Unit	Circuit diagram & configuration	Part schematic	Resistance value
Transport belt motor			Between pin 1 and pin 2: 3.5Ω Between pin 3 and pin 4: 3.5Ω or Between pin 1 and pin 2: 4.4Ω Between pin 3 and pin 4: 4.4Ω or Between pin 1 and pin 2: 4.5Ω Between pin 3 and pin 4: 4.5Ω
ID motor			Both ends of IP1: 1Ω or less

Unit	Circuit diagram & configuration		Part schematic	Resistance value
ID up-down motor				Between pin 1 and pin 3: 6.7Ω Between pin 2 and pin 4: 6.7Ω or Between pin 1 and pin 3: 7Ω Between pin 2 and pin 4: 7Ω
Fuser motor		C3400/C3450		Between pin 1 and pin 3: 2.4Ω Between pin 4 and pin 6: 2.4Ω
		C3300		
		Made by Nippon Miniature Bearing Co., Ltd.		Between pin 1 and pin 2: 5Ω Between pin 3 and pin 4: 5Ω
		Made by Micro Engineering Co., Ltd.		Between pin 1 and pin 2: 3.4Ω Between pin 3 and pin 4: 3.4Ω
Paper feeding motor				Between pin 1 and pin 2: 3.5Ω Between pin 3 and pin 4: 3.5Ω or Between pin 1 and pin 2: 4.4Ω Between pin 3 and pin 4: 4.4Ω or Between pin 1 and pin 2: 4.5Ω Between pin 3 and pin 4: 4.5Ω

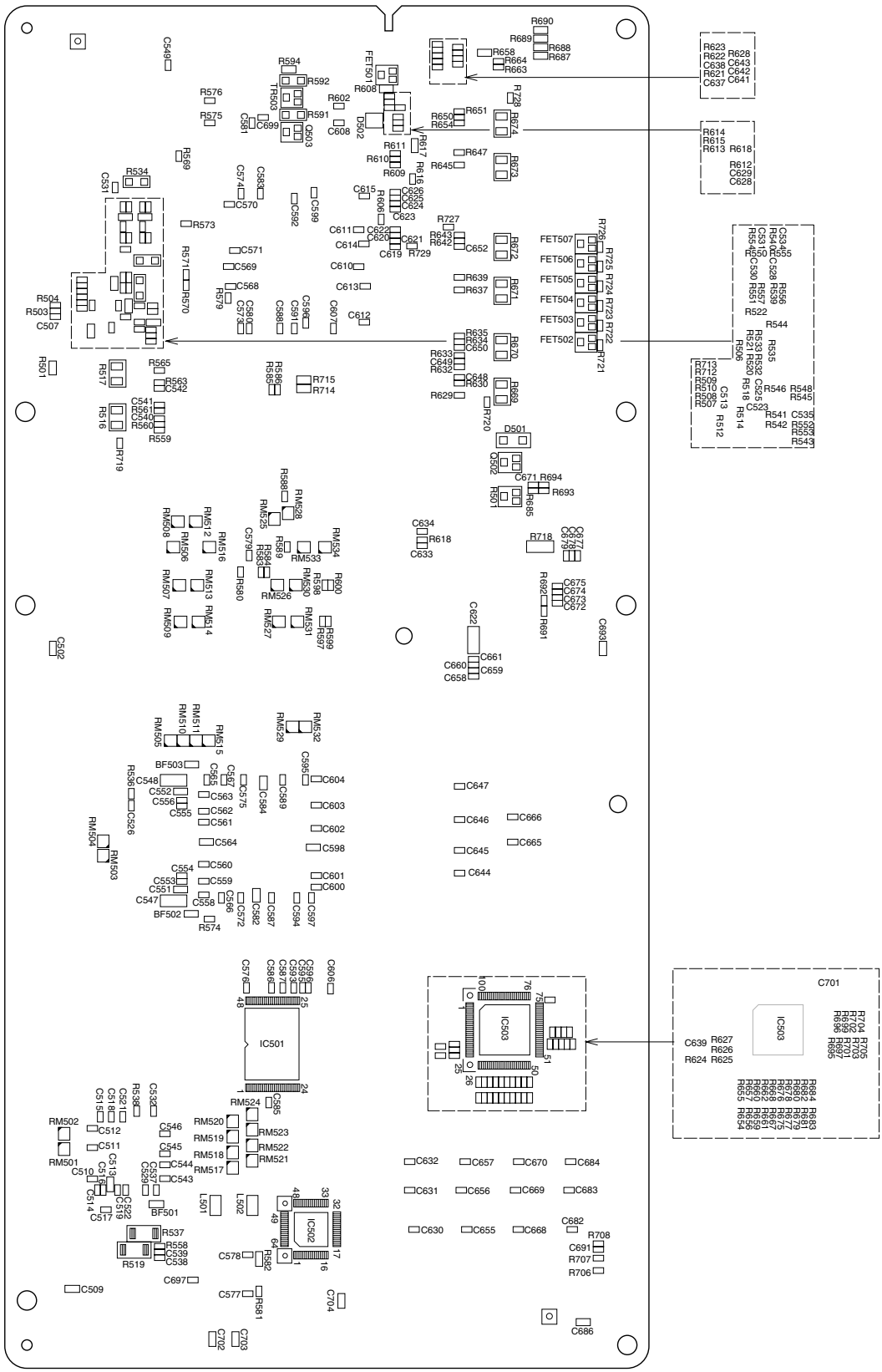
Unit	Circuit diagram & configuration	Part schematic	Resistance value
Fuser unit			Between pin 1 and pin 7: several Ω~ scores10Ω Between pin 2 and pin 3: about 4kΩ~ 5338Ω (0~200°C) Between pin 5 and pin 6: about 4.7k~979.2kΩ (0~200°C) Between pin 8 and pin 9: about 1k~806.5kΩ (0~200°C) Between pin 4 and pin 10: about 4.7k~979.2kΩ (0~200°C) Between pin 11 and pin 12: Open

Oki Data CONFIDENTIAL

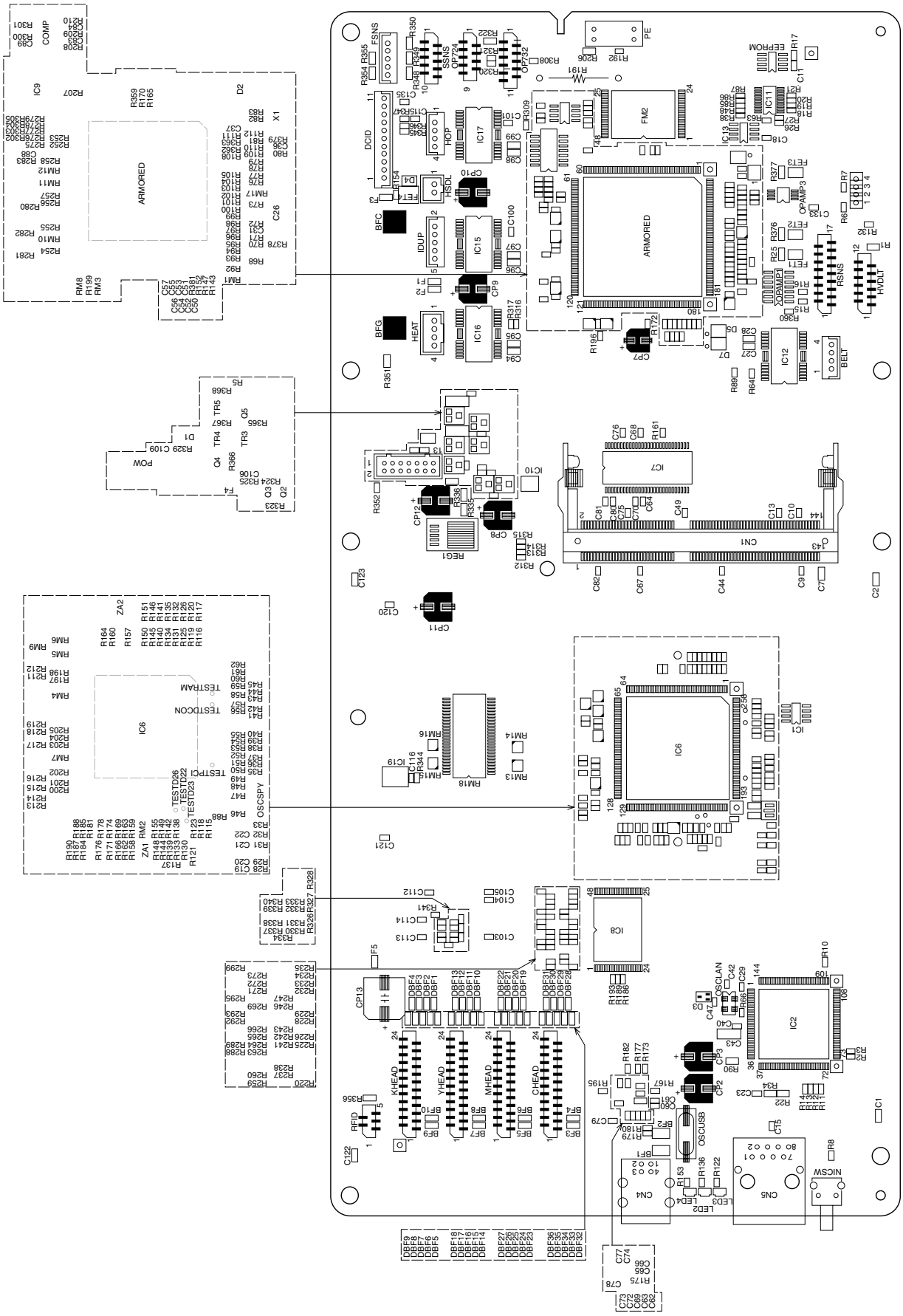
8.2 Component layout

(1) Main circuit board PCB used for n (BLA-PCB)

Component side

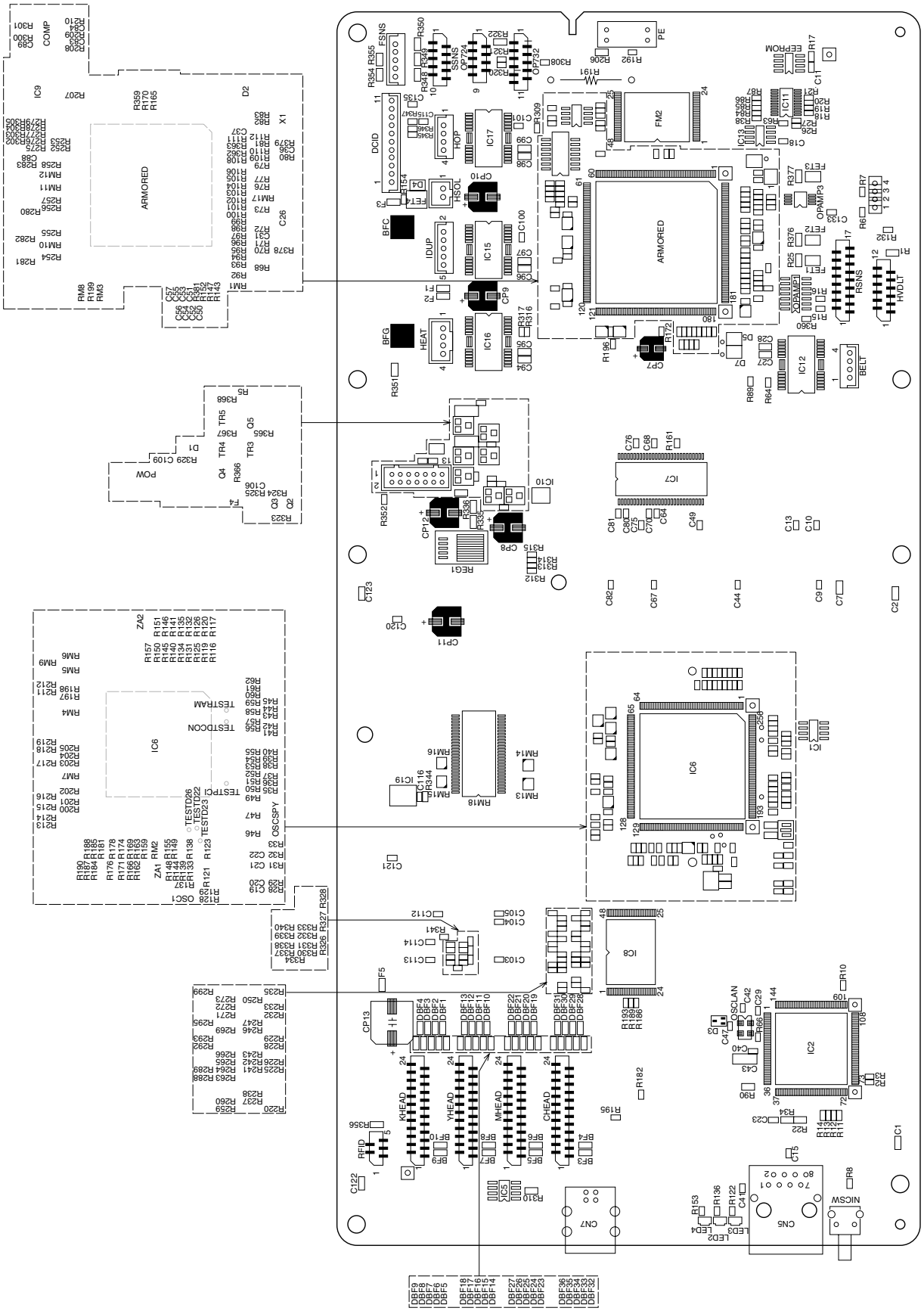


Solder side

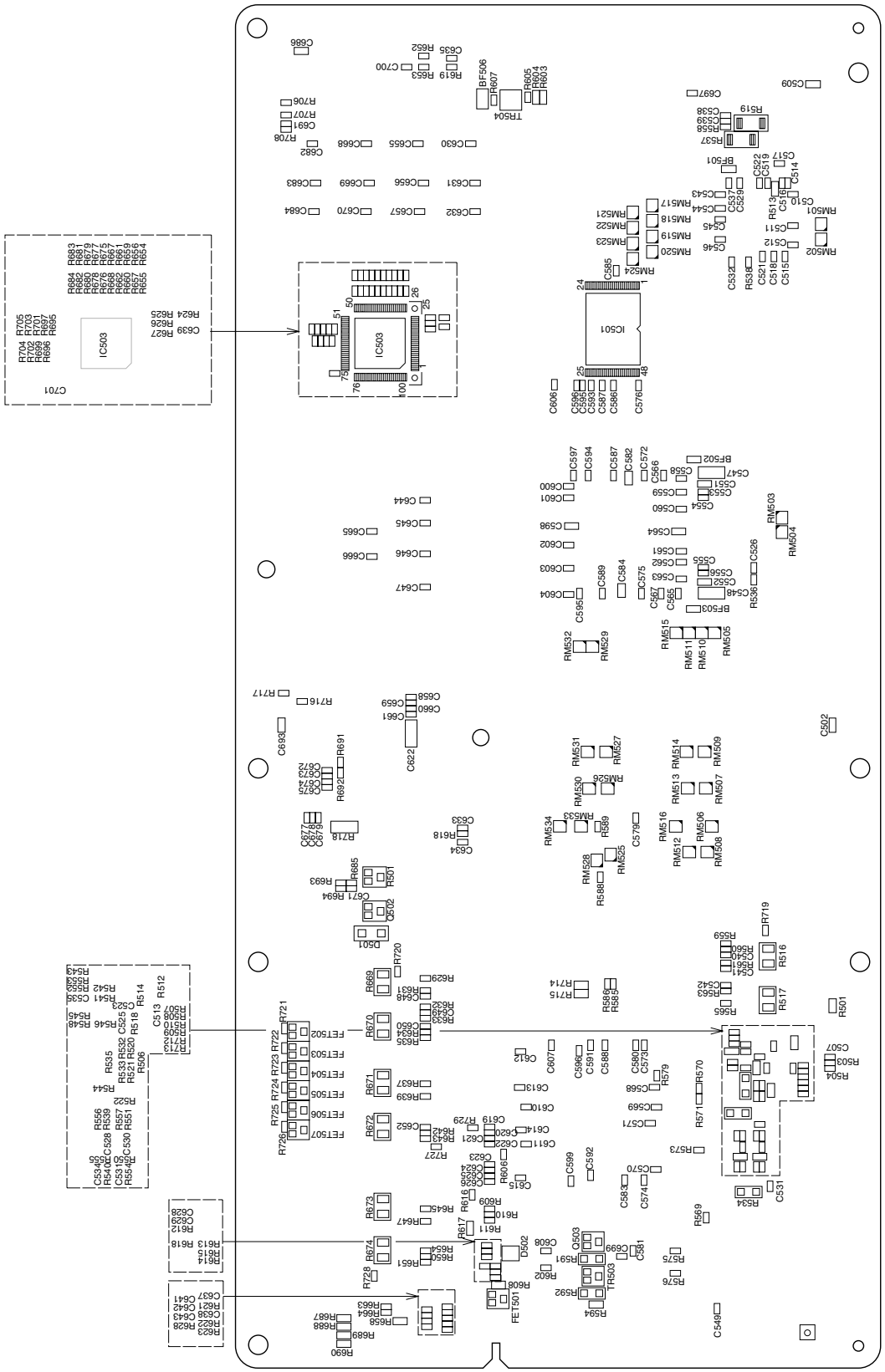

ARMORED
IC6
IC2
IC7
IC8
IC12
IC13
IC15
IC16
IC17
CN1
CN4
CN5
CN6
FM2
EEPROM
HEAT
HOP
IDUP
HSDL
BFC
BFG
DCID
OSCUSB
OSCLAN
NICSW
KHEAD
YHEAD
MHEAD
CHEAD
TESTRAM
TESTDCON
TESTPCI
OSCSPY
POW
BELT
RSNS
HVDET
FSNS
SSNS
PE

(2) Main circuit board PCB used for Ln (BLA-2 PCB)

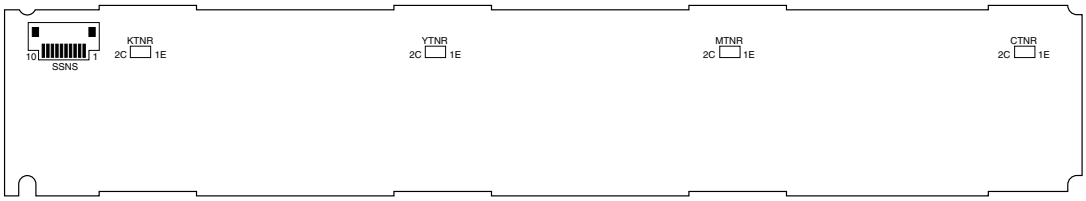
Component side



Solder side

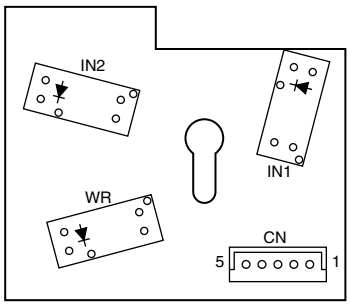


(3) Toner sensor circuit board (PRE PCB

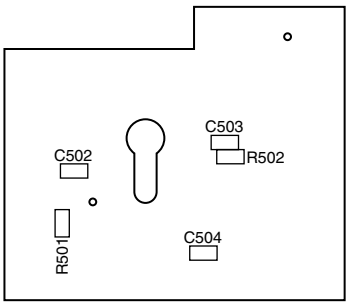


(4) Front sensor circuit board (MIP PCB)

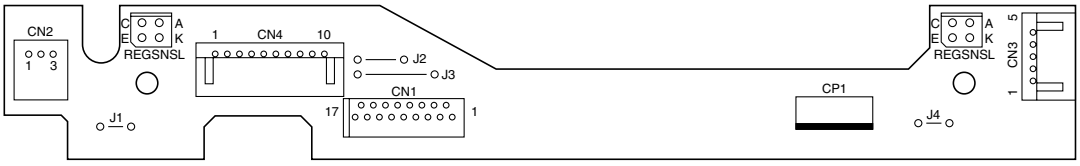
Component side



Solder side

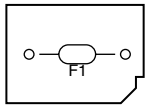


(5) Rear sensor relay circuit board (ZAK PCB)

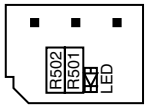


(6) ID circuit board (CUR PCB)

Component side

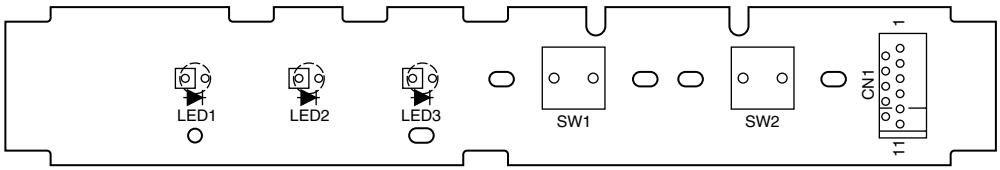


Solder side

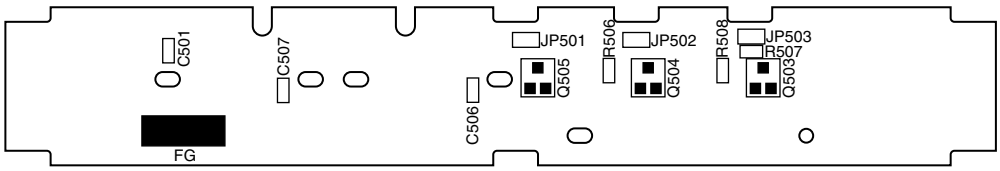


(7) Operation panel circuit board (WHI PCB)

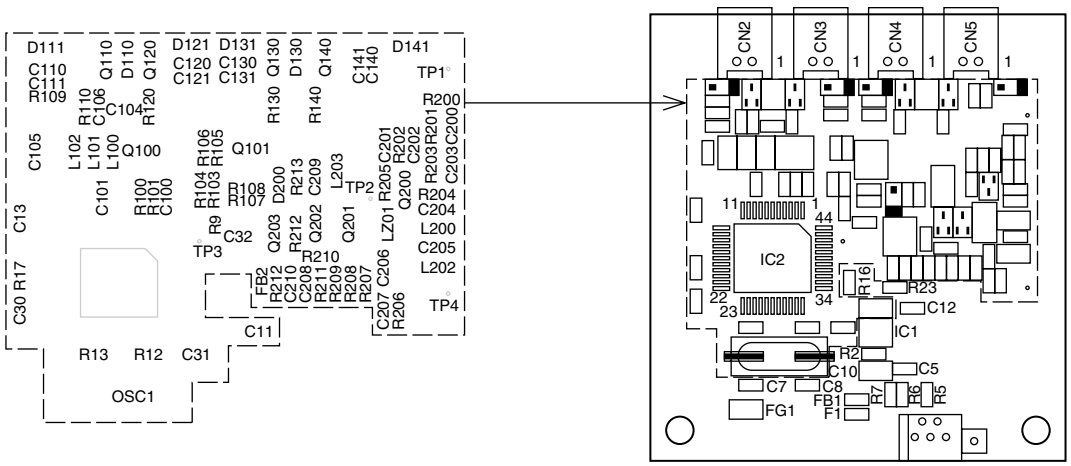
Component side



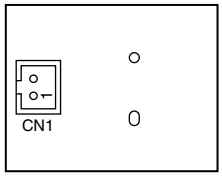
Solder side



(8) RFID reader –writer circuit board (LUM PCB)

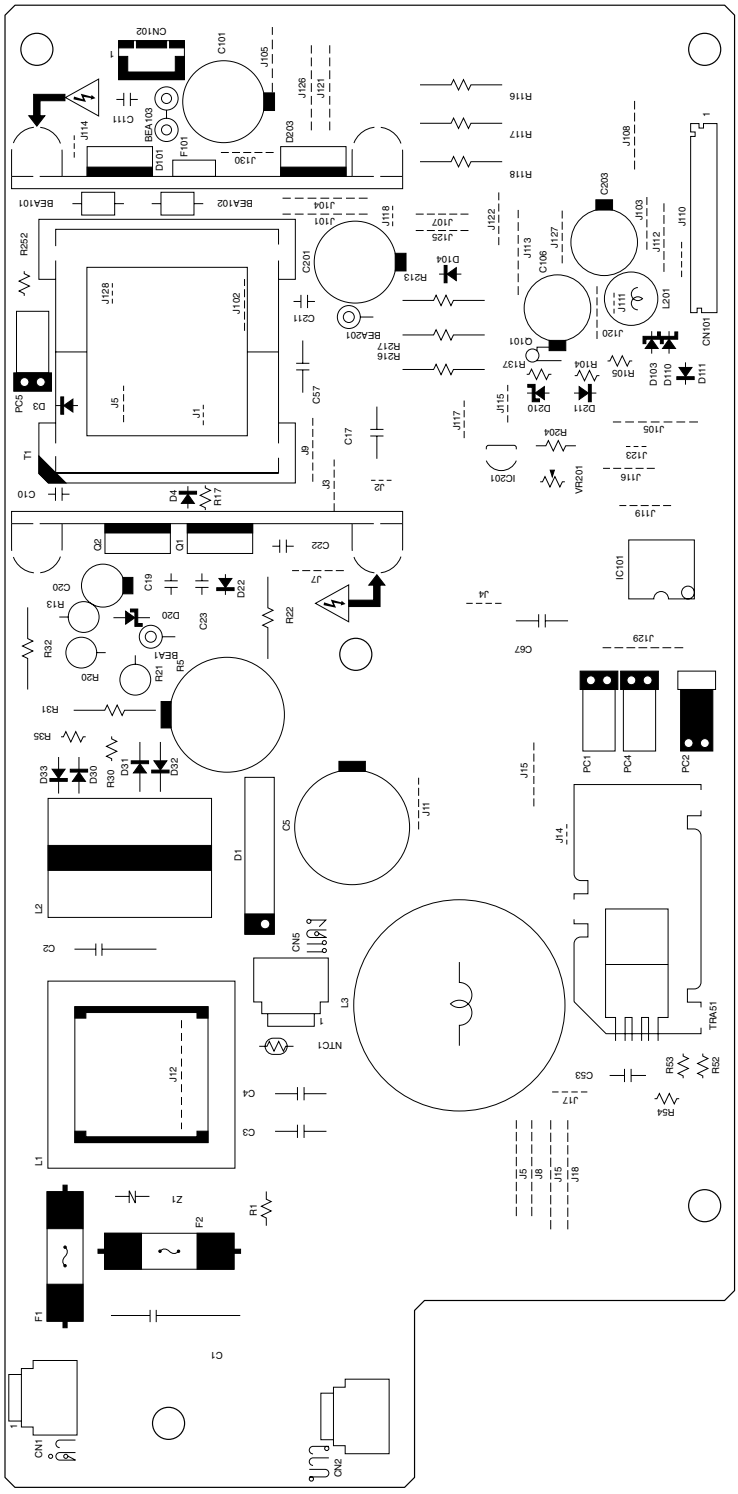


(9) RFID antenna PCB (POL PCB)

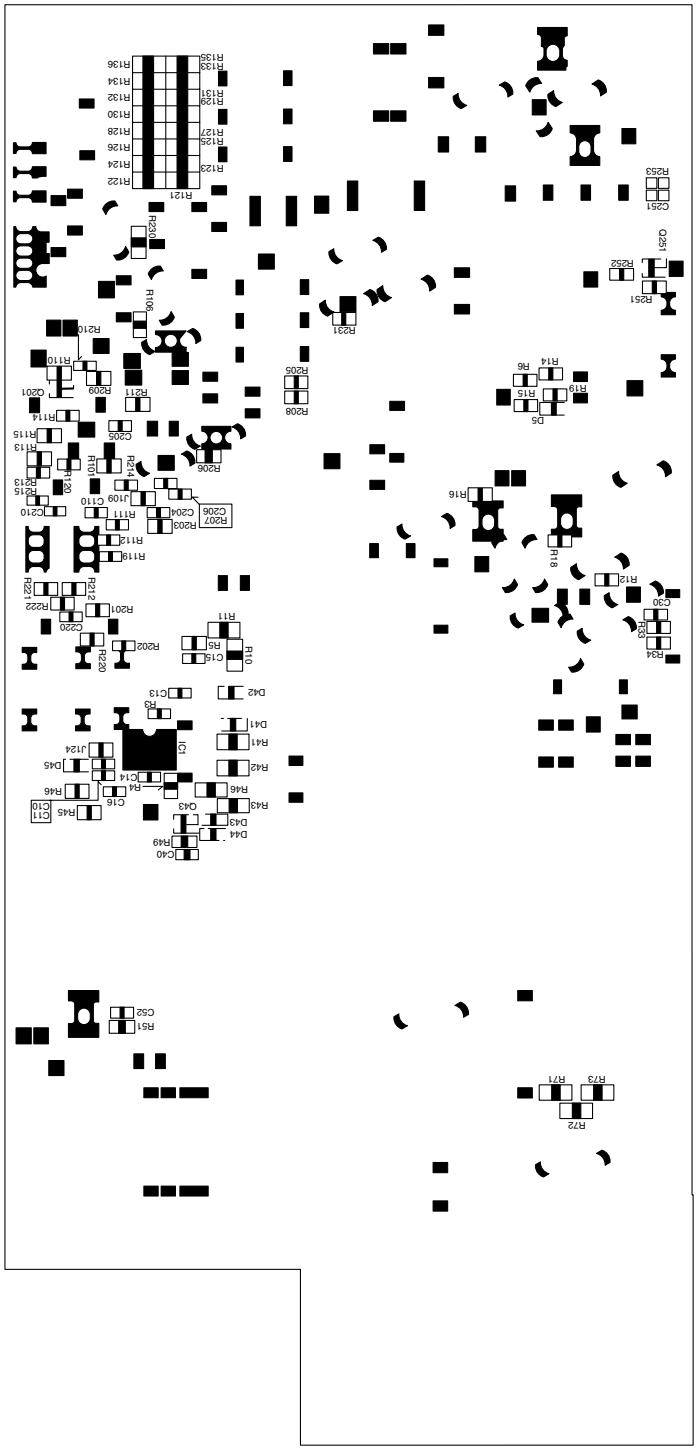


(10) Low-voltage power supply PCB

Component side

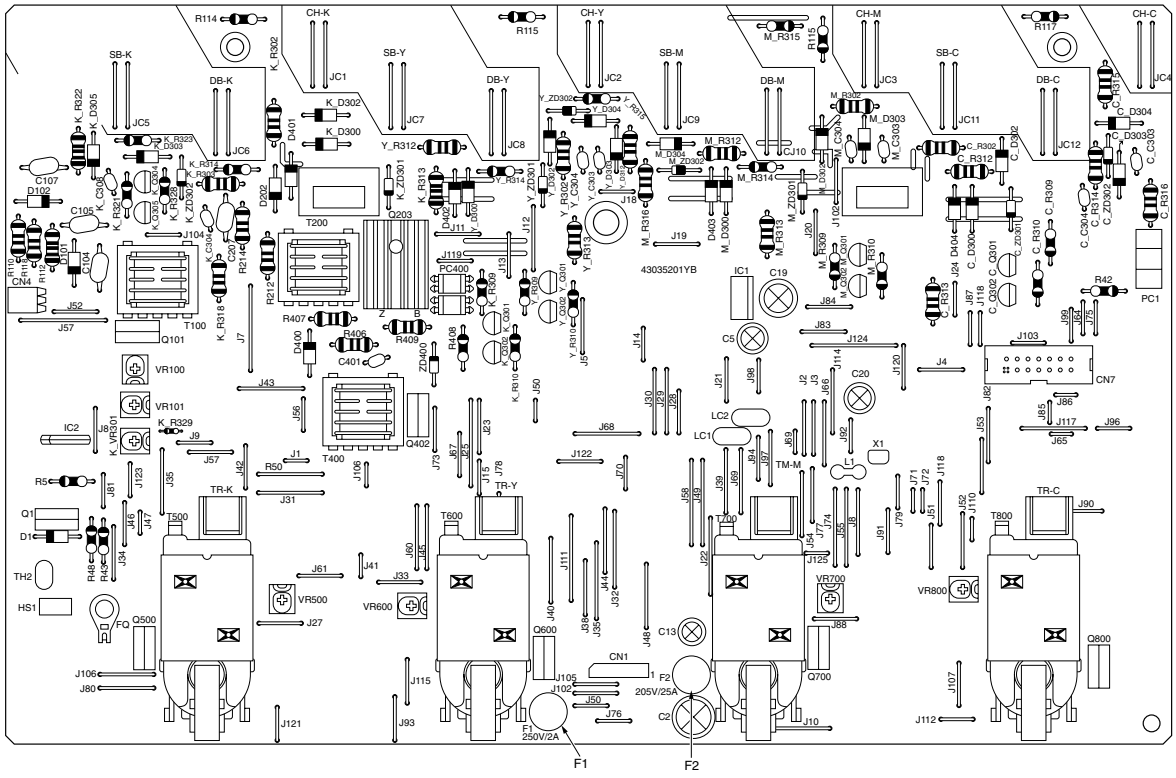


Solder side

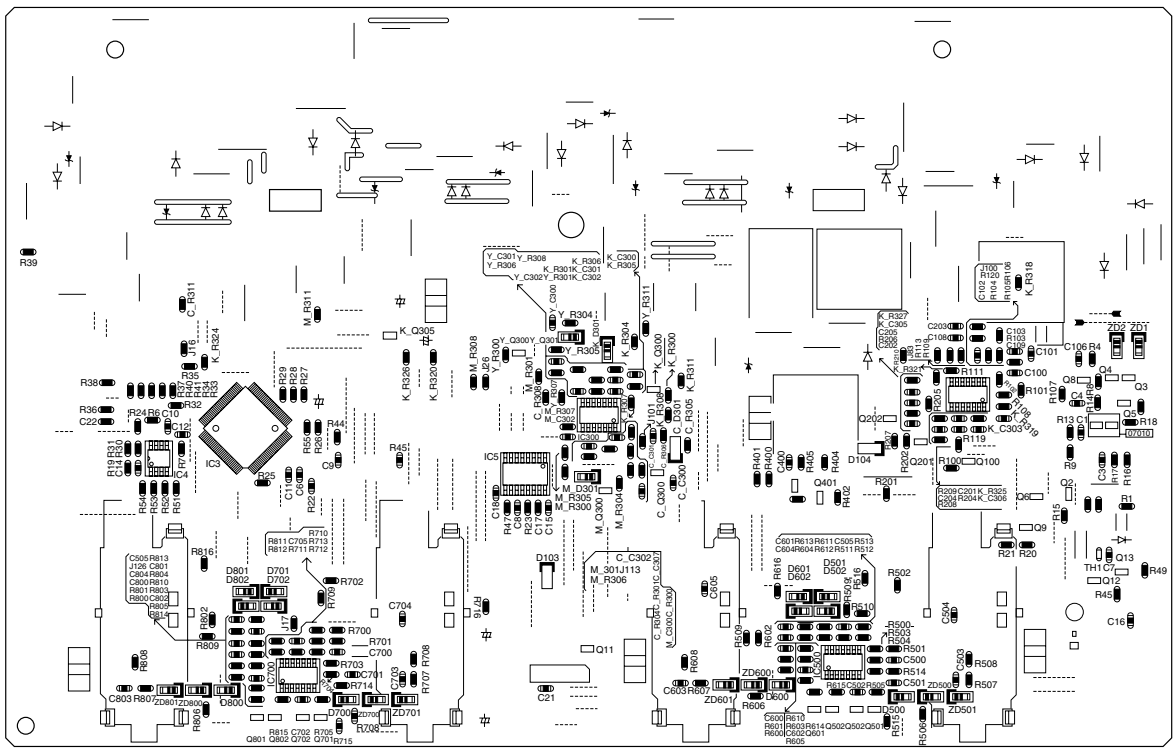


(11) High-voltage power supply PCB

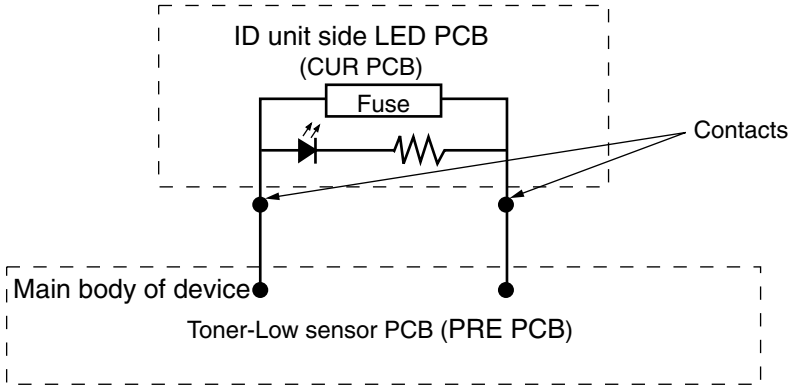
Component side

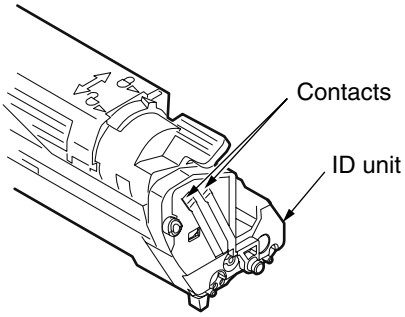


Solder side



12) ID unit





(13) Transfer belt unit